

**NUCLEAR WASTE POLICY ACT:
CURRENT STATUS AND FUTURE OPTIONS**

HEARING
BEFORE THE
SUBCOMMITTEE ON
ENERGY RESEARCH AND PRODUCTION
OF THE
COMMITTEE ON
SCIENCE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
NINETY-NINTH CONGRESS
SECOND SESSION

JULY 22, 1986

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NUCLEAR WASTE POLICY ACT: CURRENT STATUS AND FUTURE OPTIONS

TUESDAY, JULY 22, 1986

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE AND TECHNOLOGY,
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION,
Washington, DC.

The subcommittee met, pursuant to call, at 1:30 p.m., in room 2318, Rayburn House Office Building, Hon. Marilyn Lloyd (chairman of the subcommittee) presiding.

Mrs. LLOYD. Good afternoon, ladies and gentlemen. This hearing is intended to accomplish two main purposes, both of which relate to the May 28, 1986, decisions by the Secretary of Energy on the Department of Energy's high-level radioactive waste disposal program.

The first purpose of the hearing is to determine the scope of compliance with the Nuclear Waste Policy Act of 1982 regarding the deferral of work to identify a second repository site. The second purpose is to discuss the technical and political factors involved in the President's selection of three candidate sites for the first repository.

The Nuclear Waste Policy Act of 1982 requires the Secretary of Energy to recommend three sites for a second repository by July 1, 1989. The Secretary claims that despite the mandatory language of the act, a decision on second repository sites should not be made before it necessary to make decisions based upon need.

The Secretary estimates that such need will not occur until the next century. He regards the mandatory deadlines to the Nuclear Waste Policy Act as nonbinding congressional recommendations except for the 1998 operating date for the first repository, which he still plans to achieve.

The controversy with a somewhat ironic aspect arises because Western States, among others, have accused the Department of Energy of violating the Nuclear Waste Policy Act by postponing the second repository siting work. Although these same States are sympathetic to the Department of Energy's extension of the mandatory deadlines for the first repository sites, they are critical of DOE's actions relative to the second repository.

They have correctly noted that the second repository deadlines in the Waste Act were part of the political compromise that permitted the enactment of the Waste Act. Therefore, they contend that the Department of Energy should make a good faith effort at achieving them.

Witnesses from the Congress and the three first-round repository States will be presenting testimony today, and we will pursue this issue at that time.

The President's selection of Washington State, Nevada, and Texas as the three candidate sites for the first repository has also created some controversy, which is not unexpected. The environmental assessments published by the Department of Energy ranked five potential host sites in the following order: Nevada, Mississippi, Texas, Utah, and Washington.

The Secretary of Energy then considered the Nuclear Waste Policy Act requirement that, to the extent possible, the three sites be in different geologic media. He consequently recommended to the President that Washington, Nevada, and Texas be the host States for the sites to be investigated for the first repository.

It is to be noted that all five States ranked extremely high and were very close together on the rating scales. The reports issued by the Department of Energy rank all of the 99.9 plus percent in terms of acceptability.

Nevertheless, the Department of Energy has been accused of ignoring the results of the methodology, and recommending the politically-acceptable sites for characterization. The Department of Energy denies that politics entered into the discussion at all, and today we are going to hear both sides of this issue.

We do have with us a number of guests members who will be sitting with the subcommittee. One member who will be sitting with us, the Honorable Larry Combest; we are happy to have you. He is the Representative from the 19th District of Texas.

I would also like to recognize at this time my colleague the Honorable Sid Morrison, the subcommittee's ranking Republican Member for any opening remarks he would like to make.

Mr. Morrison.

Mr. MORRISON. Thank you, Madam Chairman, and thank you for the opportunity to hold this hearing.

I think we all recognize the difficulties facing the nuclear industry today, the liability issue, regulatory standardization, and the disposal of nuclear waste are issues that must be resolved if nuclear power is to be viable source of energy in this country.

Today we focus on just one of those problems, the problem of waste disposal. I personally believe in nuclear energy and believe that we can safely dispose of nuclear waste. I think the Nuclear Waste Policy Act provides direction and initiative to do so.

The act was skillfully crafted to provide a delicate balance between political interests and technical factors. Those of us who supported passage of the act did so on the presumption that it would be implemented as written.

The Department of Energy, through its decisions to postpone the second-round process has destroyed one of the most fundamental aspects of the act, the regional division of responsibility for disposal of nuclear waste. The DOE's decision violates the act, destroys the balance of responsibility, and puts in doubt the credibility of the Department.

The decision on whether to proceed with the second repository is a matter that the Congress not the Department must ultimately decide. In my view, the Department's action appears to be political-

ly motivated and violates the trust and confidence that has been placed in the Department of Energy.

Unfortunately, I have no suggestion as to how the Department can restore its credibility over the second repository decision. The letter and the intent of the law have clearly been violated.

Only a reversal of the decision would restore confidence in the process. We will also be discussing the decision on characterization of the first-round sites.

I commend the Department of Energy for applying the multi-attribute utility analysis to the decisionmaking process. It is also apparent from the documents that all five sites would meet the technical requirements required for the next level of research.

However, it seems that other criteria were applied in order to make the decision. I would like to explore what other factors were taken into consideration before choosing Texas, Nevada, and Washington as sites for characterization.

I think we can work together, the Congress, the Department, and the affected States to solve the disposal problem. However, it is clearly a lack of communication and understanding between the parties.

We must solve this problem if there is to be confidence in the process and if there is no confidence in the process there will be no confidence in the results. I look forward to hearing from all of our witnesses today and hope we will better understand the problem and the Department's answers as a result of this hearing.

Mrs. LLOYD. Thank you very much, Mr. Morrison.

The Chair now recognizes the gentlemen from Idaho, Mr. Stallings, for any opening remarks he would like to make or for any unanimous consent requests.

Mr. STALLINGS. Thank you, Madam Chairman.

As we begin discussion today on the Nuclear Waste Policy Act, I appreciate this opportunity to express some general concerns, regarding the Department of Energy's decision to halt its effort to examine potential sites for a second nuclear waste repository. In a resolution adopted July 8, the Western Governors' Association expressed its objections to the Department's decision to postpone work on a second repository.

As a member of the State Planning Council on Radioactive Waste Management, Idaho Governor, John Evans has a personal interest in this issue and has been an effective voice for Western States. At this time I would like to submit written testimony from Governor Evans and a resolution from the Western Governors' Association for inclusion in the hearing record.

Mrs. LLOYD. Without objection, so ordered, Mr. Stallings.

[The prepared statement of Governor Evans follows:]

JOHN V. EVANS
GOVERNOR



OFFICE OF THE GOVERNOR
STATE CAPITOL
BOISE 83720
BEFORE THE SUBCOMMITTEE ON ENERGY RESEARCH
THE TESTIMONY OF GOVERNOR JOHN V. EVANS
FOR THE STATE OF IDAHO
JULY 22, 1986

I appreciate the attention this subcommittee is giving to the recent decision by the Administration to indefinitely postpone the siting of a second repository for high-level nuclear waste. As a member of the State Planning Council on Radioactive Waste Management, I was hopeful that the Council's recommendations, incorporated in the Nuclear Waste Policy Act of 1982, would lead to a successful repository program. However, this unfortunate decision serves to undermine public confidence in the program, and forces Western states to question the Department of Energy's integrity in the consultation and concurrence process.

Idaho has an important stake in the success of the national repository program. A significant portion of the nation's defense high-level waste is currently stored at the Idaho National Engineering Laboratory, and Idahoans would prefer to see, in the foreseeable future, these wastes transported to a secure, geologic repository. However, even Idahoans who wish the repository program to succeed are understandably concerned that should Hanford, Washington be the first and only national repository, nearly all spent fuel and high-level wastes generated in the country would have to be transported through Idaho. The concern of citizens in the potential host states will, of course, be proportionately greater. Thus, I fear this decision will lead to more unnecessary opposition and delay in a program that is vital to both the nuclear power industry and the health and safety of our citizens.

Further, it appears more critical than ever that states adjacent to potential repository states be afforded a more effective role in the decision-making process. In 1982, Oregon Governor Vic Atiyeh and I urged Congress to recognize this right of adjacent states, but Congress failed to include such a provision in the Act at that time. Because this subcommittee and other members of Congress are re-examining the Act and its implementation, I again encourage you to consider including adjacent states in the consultation and concurrence process at an appropriate level of involvement.

If Hanford, Washington is selected as the first and only repository, Idaho will be impacted by thousands of truck and/or rail shipments each year. Concerns exist with our rural state's capability to provide the necessary infrastructure, inspections and emergency response to facilitate such increased traffic. In addition, we have a legitimate interest in any project which could impact the Columbia River fisheries and waterways. Some involvement in siting decisions should be provided to adjacent states such as Idaho which will play significant roles in the transportation system.

Finally, I am convinced that the construction of a second repository in the eastern part of the United States, nearer to most of the nation's nuclear power plants, is amply justified. Should a decision be made to site only one repository for the near term, I concur with other Western governors that the crystalline rock media should be fully co-evaluated along with salt, tuff and basalt.

Congress deliberated for many years before enacting the Nuclear Waste Policy Act, and its requirements should not be disregarded lightly. The decision to defer the second repository mandated by the Act should only have been made after consultation with affected state, local and tribal governments, and with the approval of Congress. I urge this subcommittee to recognize the serious need to require the Department of Energy to abide by the letter and intent of the Act, or else the success of the repository program is in serious jeopardy.

Western Governors' Association Resolution 86-014

July 8, 1986
Colorado Springs, Colorado

SPONSORS: Governors Gardner, Bryan, and Evans

SUBJECT: High-Level Waste Repository

A. BACKGROUND

1. The United States Secretary of Energy has recommended, and the President has approved, three sites for characterization as the nation's first repository for high-level nuclear waste and spent nuclear fuel.
2. The three sites approved for characterization are located in the states of Nevada, Washington and Texas.
3. The Nuclear Waste Policy Act of 1982 requires the United States Department of Energy to plan for, and to site, a second repository for high-level nuclear waste and spent nuclear fuel, and places a limitation on the amount of material which can be emplaced in first repository before a second repository is available.
4. The United States Secretary of Energy must nominate, not later than July 1, 1989, five sites, and recommend by such date to the President, three candidate sites for characterization for a second repository.
5. The President must submit to the Congress, a recommendation, not later than March 31, 1990, of a site for a second repository.
6. It was the intent of the Congress in enacting the Nuclear Waste Policy Act, and in requiring the planning and development of the second nuclear waste repository, that regional and geographic equity be recognized, and thus required "the planning and development of more than one high-level radioactive waste repository located so as to serve various regions of the country.
7. Eighty-five percent of the spent fuel produced in this country is produced east of the Mississippi River.
8. In the event that only one repository for high-level nuclear waste and spent nuclear fuel is developed in the country, and that repository is located in a western state, a disproportionate share of the nation's burden, not only of disposing of such spent fuel and high-level waste, but of transporting such waste, will be borne by the western states. (Reference WGA Resolution 85-003.)
9. On May 28, 1986, in announcing the three sites to be characterized for the nation's first repository, the United States Secretary of Energy also announced that all site specific work on the second repository would be indefinitely postponed.

B. GOVERNORS' POLICY STATEMENT

1. The western governors strenuously object to the Secretary of Energy's decision to indefinitely postpone all work on locating and developing a second repository for high-level nuclear waste and spent fuel.
2. The western governors find the Secretary's decision to be arbitrary, and a clear violation of the intent of the Congress, and the spirit, if not the letter, of the Nuclear Waste Policy Act.
3. The western governors find the Secretary's decision to be a breach of faith with the Congress, and with the western states, and to constitute a total disregard by the Secretary of any fundamental concept of regional equity.
4. The western governors urge the Congress, and the President, to suspend all further work on site characterization for a first repository for high-level nuclear waste and spent nuclear fuel until work on the siting and development of a second repository is recommenced, and on a schedule reasonably intended to meet all statutory deadlines, or, alternatively, to reconsider and to recall their decision to recommend and approve three sites located in the western states for characterization for the nation's first repository, and to begin immediately a comprehensive nationwide search for the best available site for such a repository, to include all known, appropriate geologic media, including granite.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The staff of the Western Governors' Association is directed to transmit this Resolution to the President of the United States, the United States Secretary of Energy, the Speaker of the United States House of Representatives, the President of the United States Senate, and the members of the Senate and House of Representatives from each of the member states of the Western Governors' Association.

DISPOSITION:

Approved: Deukmejian, Lamm, Ariyoshi, Schwinden, Kerrey, Anaya, Sinner, Atiyeh
Janklow, Bangerter, and Gardner

Disapproved: _____

Abstained: _____

Not Present: Sheffield, Lutali, Babbitt, Bordallo, Evans, Bryan, Tenorio, and Herschler

Mr. STALLINGS. I share the Governors' concerns and would like to highlight some of their views on this vital national issue.

As you know the 1982 Nuclear Waste Policy Act requires the Department of Energy to plan for, and to site, a second repository for high-level nuclear waste and spent fuel.

The May 28 announcement by DOE to indefinitely postpone its search for a second repository is arbitrary and a clear violation of the Nuclear Waste Policy Act. Congress deliberated for many years before enacting this legislation and its requirements should not be disregarded lightly.

This unfortunate decision serves to undermine public confidence in the program, and forces Western States to question the Department of Energy's integrity in the process. It also threatens to destroy the delicate regional compromise negotiated by Members of Congress.

The siting of a second repository was a key part of that political compromise and the basis for support from Western States.

Idaho and many other States have an important stake in the success of the National Repository Program. I share Governor Evans' concern that DOE's decision will lead to more unnecessary opposition and delay in a program that is vital to both the nuclear power industry and the health and safety of our children.

Furthermore, it appears more critical than ever that States adjacent to potential repository states should be afforded a more effective role in the decisionmaking process.

The decision to defer the second repository should only have been made after consultation with affected State, local, and tribal governments, and with the approval of Congress. The decision on whether to proceed with a second repository is an issue that the Congress, not the Department of Energy, must decide.

I am hopeful that the administration will reconsider its position and resume a good faith effort with the Congress to ensure the successful implementation of the Nuclear Waste Policy Act.

Again, I thank you, Madam Chairman, for holding this important hearing and for the opportunity to share these comments with the subcommittee.

Mrs. LLOYD. Thank you very much, Mr. Stallings.

The chair would like to recognize the Honorable Joe Barton from Texas, for any remarks he would like to make.

Mr. BARTON. Thank you, Madam Chairman. You are to be commended for calling this hearing. As you know, my State is one of the finalists for the selection of the first repository.

I think the interest in my State can be seen by the fact that Congressman Boulter will testify, and Congressman Combest is here to participate in this hearing. It is an issue that needs to be addressed.

There are many of us that think that second repository site selection process should also go on. I am sure we are going to get into that as the hearing progresses.

I am delighted that you have seen fit to call the hearing, and look forward to participating.

Mrs. LLOYD. You are announcing your dubious honor today.

We do have a long list of witnesses today, including four Members of Congress to be with us, I understand a few more are on their way.

Our first witness is a member of the Science Committee, the Honorable Harry Reid, from the First District of Nevada. We are certainly pleased to have a member of the full committee before us today. This is a very important and a very controversial issue.

Your entire statement will be made a part of the record; and you may proceed as you wish, Mr. Reid.

**STATEMENT OF HON. HARRY M. REID, A REPRESENTATIVE IN
CONGRESS, FROM THE STATE OF NEVADA**

Mr. REID. I appreciate the opportunity appear before you today to discuss the Department of Energy's decision to abandon the site selection process for the second round nuclear waste repository.

Madam Chairman, let me begin by saying that I realize nobody wants nuclear waste in their State. But in Nevada, where 87 percent of the land is owned by the Federal Government, the people feel overtly threatened by a process that appears predetermined to select our State as a nuclear burial ground.

The people of Nevada are overwhelmingly opposed to this dump. Just last week, more than 2,000 people turned out in temperatures of over 100 degrees to sign a letter I am sending to President Reagan stating we do not want the dump. Even if we overlook the right of a State to determine what it wants within its own borders, there are other compelling reasons why Nevada should not receive this dump.

For Nevada to be forced to accept this waste would be devastating to our No. 1 industry, that of tourism. In addition, Yucca Mountain is located near the Walker Lane structural zone, an area of folded rocks and faults which indicate geological instability.

The recent earthquakes on the California/Nevada border support this conclusion. I could continue, Madam Chairperson, for the rest of the day stating why Nevada is an unacceptable choice under any circumstance for the waste. However, there are good reasons why all States should be worried arbitrary, politicized selection process for a national nuclear dump.

Congress attempted to tackle the nuclear disposal problem back in 1982 with the passage of the Nuclear Waste Policy Act. Understanding the extent of the controversy surrounding the location of a nuclear waste repository, Congress limited the capacity for the first repository and required that a location for a second repository be identified in a different geographic area from the first site.

Congress believed at the time of the act that a fair compromise had been reached concerning the selection process, one that would not single out any particular State or region of the country unfairly. The selection process was the essence of the compromise. Unfortunately, in the ensuing years the DOE has chosen to ignore congressional intent regarding the act.

The department has allowed politics and expediency to be the motivating force behind the selection process for the first repository, and the motivating force behind the decision to postpone in-

definitely the second repository. As a westerner, I am all too aware of where the majority of the votes exist in the United States.

With the same reality in mind, it appears the administration has used the delay tactic on the second repository for gross political manipulation in the East. Further, DOE has the audacity to try to plan the decision both ways.

It has not escaped my attention that DOE officials, such as Mr. Rusche, Director of the Office of Civilian Radioactive Waste Management are in the East, they leave the impression that the second repository will never be sought, while in the West we are told it is only a temporary delay. It is a nice election year ploy, but it is not following the law.

DOE has blatantly and arrogantly ignored or sidestepped congressional intent. In my own State of Nevada, we have already filed seven lawsuits, one of which we have won concerning the State's participation in the site characterization process.

On June 4, I wrote a letter to President Reagan calling for the resignation or release of Mr. Ben Rusche, for among other things, the mishandling of the site selection process.

In addition, I have been in close consultation with Chairman Ed Markey of the Subcommittee on Energy Conservation and Power. I will vote, tomorrow I hope, Madam Chair, to cut appropriations for the first site characterization, and I believe that Congress should revisit the act itself and rewrite it so that virtually all discretion on the part of DOE is removed.

This is an issue of extreme national importance with far reaching economic, health and safety implications, and we cannot tolerate a selection process that is politically motivated and steeped in geographical favoritism.

I appreciate your holding this hearing today, Mrs. Lloyd, and thank you for the chance to address the subcommittee concerning the site selection issue.

[The prepared statement of Mr. Reid follows:]

TESTIMONY OF CONGRESSMAN HARRY REID

July 22, 1986

Subcommittee on Energy Research
and Production

Madame Chair, I appreciate the opportunity to appear before you today to discuss the Department of Energy's decision to abandon the site selection process for the second nuclear waste repository.

Let me begin by saying that I realize nobody wants nuclear waste in their state. But in Nevada, where 87% of the land is owned by the Federal Government, the people feel overtly threatened by a process that appears predetermined to select our state as a nuclear burial ground. The people of Nevada are overwhelmingly opposed to this dump. Just last week, more than two thousand people turned out in temperatures over 100 degrees to sign a letter I am sending to President Reagan stating we do not want the dump. Even if we overlook the right of a state to determine what it wants within its own borders, there are other compelling reasons why Nevada should not receive this dump.

For Nevada to be forced to accept this waste would be devastating to our number one industry, that of tourism. In addition, Yucca Mountain is located near the Walker Lane Structural Zone, an area of folded rocks and faults which indicate geological instability. The recent earthquakes on the California/Nevada border support this conclusion. I could continue for the rest of the day stating why Nevada is an unacceptable choice under any circumstance for the

waste. However, there are good reasons why all states should be worried about an arbitrary a politicized selection process for a national nuclear dump.

Congress attempted to tackle the Nuclear Disposal problem back in 1982 with the passage of the Nuclear Waste Disposal Act. Understanding the extent of the controversy surrounding the location of a nuclear waste repository, Congress limited the capacity for the first repository and required that a location for a second repository be identified in a different geographic area from the first site.

Congress believed at the time of the Act that a fair compromise had been reached concerning the selection process, one that would not single out any particular state or region of the country unfairly. The selection process was the essence of the compromise. Unfortunately, in the ensuing years the DOE has chosen to ignore Congressional intent regarding the Act. The Department has allowed politics and expediency to be the motivating force behind the selection process for the first repository, and the motivating force behind the decision to postpone indefinitely the second repository. As a westerner, I am all too aware of where the majority of the votes exist in the United States. With the same reality in mind, it appears that the Administration has used the delay tactic on the second repository for gross political manipulation in the East. Further, DOE has the audacity to try to play the decision both ways.

It has not escaped my attention that when DOE officials such as Mr. Ben Rusche, Director of the Office of Civilian Radioactive Waste Management, ^{are in the East,} they leave the impression that the second repository will never be sought, while in the West we are told it is only a temporary delay. It's a nice election year ploy, but it's not following the law.

DOE has blatantly and arrogantly ignored or side-stepped Congressional intent. In my own State of Nevada, we have already filed 7 law suits, one of which we have won concerning the State's participation in the site characterization process. On June 4, I wrote a letter to President Reagan calling for the resignation of Mr. Ben Rusche for, among other things, the mishandling of the site selection process. In addition, I have been in close consultation with Chairman Markey of the Subcommittee on Energy Conservation and Power. I will vote to cut appropriations for the first site characterization and I believe that Congress should revisit the Act itself and rewrite it so that virtually all discretion on the part of DOE is removed. This is an issue of extreme national importance with far reaching economic, health and safety implications, and we cannot tolerate a selection process that is politically motivated and steeped in geographical favoritism.

Madame Chair, I appreciate your holding this hearing today and thank you for the chance to address the Subcommittee concerning the site selection issue.

Mrs. LLOYD. Thank you very much, Mr. Reid, for your very excellent testimony.

We are also happy to have with us the Honorable Barbara Vucanovich, she represents the Second District of Nevada.

Barbara, we are very happy to have you with us today. Your written testimony will be made a part of the record and you may proceed as you wish.

**STATEMENT OF HON. BARBARA F. VUCANOVICH, A
REPRESENTATIVE IN CONGRESS, FROM THE STATE OF NEVADA**

Mrs. VUCANOVICH. Thank you, Madam Chairman, and members of the subcommittee. I would like to thank you for the opportunity to testify before you today on an issue that is probably the single most important issue facing the State of Nevada today, high-level nuclear waste.

I would also like to acknowledge and thank the people who are here from Nevada, and welcome them to Washington, DC.

As we all know, in 1982, Congress passed the Nuclear Waste Policy Act. This act was carefully constructed to provide for the identification and establishment of two high-level nuclear waste repositories, one to be based in the West and one in the East.

As you are all well aware, on May 28, 1986, the Department of Energy announced its three recommendations to the President for the first repository site and at the same time announced that it had postponed, indefinitely, further site identification for a second repository.

Unfortunately, as you noted, Madam Chairman, Nevada has the dubious honor of being one of the sites selected, as well as Deaf Smith, TX—and when I talked to the members from Texas, they pronounce it Deft Smith, and Hanford, WA.

I am extremely concerned about this decision and the impact it has on the first repository selection process. I don't believe that DOE has the authority to indefinitely postpone the second repository, and by doing so has violated the spirit and the intent of the law.

This is but one example of DOE's blatant disregard of the Nuclear Waste Policy Act of 1982.

The site selection process is the single most important aspect of the act, and the single most important aspect of the process should be safety. I am not at all convinced that safety was of primary importance in DOE's site selection process.

I have introduced legislation, H.R. 5031, that would halt further site characterization on all three sites until the criteria have been reviewed and reestablished based on one repository. The criteria must be targeted to find the safest location to store nuclear waste.

When the safest sites have been identified, recommendations should be then be made to the President and further characterization started.

This selection should not be based on economics, expediency, and most of all, politics. The site ultimately selected will affect thousands of future generations of Americans. We owe it to our children, our grandchildren and their grandchildren to make it the safest site possible.

Madam Chairman, I urge this subcommittee to listen carefully to testimony and recommendations that will be presented here today. Thank you again for the opportunity to testify.

[The prepared statement of Mrs. Vucanovich follows:]

TESTIMONY OF
BARBARA F. VUCANOVICH
NEVADA, SECOND DISTRICT
BEFORE THE
HOUSE SUBCOMMITTEE ON ENERGY, RESEARCH & PRODUCTION
COMMITTEE ON SCIENCE AND TECHNOLOGY
JULY 22, 1986

GOOD AFTERNOON MADAME CHAIRMAN AND MEMBERS OF THE COMMITTEE. I WOULD LIKE TO THANK YOU FOR THE OPPORTUNITY TO TESTIFY BEFORE YOU TODAY ON AN ISSUE THAT IS PROBABLY THE SINGLE MOST IMPORTANT ISSUE FACING THE STATE OF NEVADA TODAY -- HIGH-LEVEL NUCLEAR WASTE. I WOULD ALSO LIKE TO THANK THE PEOPLE WHO ARE HERE FROM NEVADA AND WELCOME THEM TO WASHINGTON, D.C.

IN 1982, CONGRESS PASSED THE NUCLEAR WASTE POLICY ACT. THIS ACT WAS CAREFULLY CONSTRUCTED TO PROVIDE FOR THE IDENTIFICATION AND ESTABLISHMENT OF TWO HIGH-LEVEL NUCLEAR WASTE REPOSITORIES, ONE TO BE BASED IN THE WEST AND ONE IN THE EAST. AS YOU ARE ALL AWARE, ON MAY 28, 1986, THE DEPARTMENT OF ENERGY ANNOUNCED ITS THREE RECOMMENDATIONS TO THE PRESIDENT FOR THE FIRST REPOSITORY SITE AND AT THE SAME TIME ANNOUNCED THAT IT HAS POSTPONED, INDEFINITELY, FURTHER SITE IDENTIFICATION FOR A SECOND REPOSITORY.

UNFORTUNATELY, NEVADA HAS THE DUBIOUS HONOR OF BEING ONE OF THE SITES SELECTED, AS WELL AS DEAF SMITH, TEXAS AND HANFORD, WASHINGTON.

I AM EXTREMELY CONCERNED ABOUT THIS DECISION AND THE IMPACT IT HAS ON THE FIRST REPOSITORY SELECTION PROCESS. I DO NOT BELIEVE THAT THE DOE HAS THE AUTHORITY TO "INDEFINITELY POSTPONE" THE SECOND REPOSITORY AND

BY DOING SO HAS VIOLATED THE SPIRIT AND INTENT OF THE LAW. THIS IS BUT ONE EXAMPLE OF THE DOE'S BLATANT DISREGARD OF THE NUCLEAR POLICY ACT OF 1982.

THE SITE SELECTION PROCESS IS THE SINGLE MOST IMPORTANT ASPECT OF THE ACT, AND THE SINGLE MOST IMPORTANT ASPECT OF THE PROCESS SHOULD BE SAFETY. I AM NOT AT ALL CONVINCED THAT SAFETY WAS OF PRIMARY IMPORTANCE IN DOE'S SITE SELECTION PROCESS.

I HAVE INTRODUCED LEGISLATION, H.R. 5031, THAT WOULD HALT FURTHER SITE CHARACTERIZATION ON ALL THREE SITES, UNTIL THE CRITERIA HAVE BEEN REVIEWED AND REESTABLISHED BASED ON ONE REPOSITORY. THE CRITERIA MUST BE TARGETED TO FIND THE SAFEST LOCATION TO STORE NUCLEAR WASTE. WHEN THE SAFEST SITES HAVE BEEN IDENTIFIED, RECOMMENDATIONS SHOULD THEN BE MADE TO THE PRESIDENT AND FURTHER CHARACTERIZATION STARTED.

THIS SELECTION SHOULD NOT BE BASED ON ECONOMICS, EXPEDIENCY AND, MOST OF ALL, POLITICS. THE SITE ULTIMATELY SELECTED WILL AFFECT THOUSANDS OF FUTURE GENERATIONS OF AMERICANS. WE OWE IT TO OUR CHILDREN, OUR GRANDCHILDREN AND THEIR GRANDCHILDREN TO MAKE IT THE SAFEST SITE POSSIBLE.

MADAME CHAIRMAN, I URGE THIS COMMITTEE TO LISTEN CAREFULLY TO TESTIMONY AND RECOMMENDATIONS THAT WILL BE PRESENTED HERE TODAY. THANK YOU AGAIN FOR THE OPPORTUNITY TO TESTIFY.

Mrs. LLOYD. Thank you very much, Barbara, for being with us today.

Before you leave, Mr. Reid, are there any questions from the panel for Mr. Reid or for Mrs. Vucanovich.

Mr. COMBEST. Madam Chairman, just one comment; I can't let it go.

Some people in some parts of the State may say, "Deft Smith," those of us who represent Deaf Smith, call it "Deaf Smith."

Thank you, Barbara.

Mrs. LLOYD. If there are no further questions we would like to thank both of you for being with us today, and for making our hearing a very fine hearing with the testimony that you have presented.

Thank you.

I understand that Mr. Weaver is on his way to the hearing. I think that if Mr. Weaver is not here we will proceed to our next witness.

Our next witness is Mr. Del White, who is representing his Indian tribe in the Nuclear Waste Policy Act program.

We are very happy that you can be with us today, Mr. White. Your entire written statement will be made a part of the record. You may proceed as you wish.

STATEMENT OF DEL T. WHITE, ASSISTANT SECRETARY/TREASURER OF THE NEZ PERCE TRIBAL EXECUTIVE COMMITTEE, ACCOMPANIED BY RON HALFMOON, PROGRAM MANAGER, NEZ PERCE TRIBE

Mr. WHITE. To my left is Mr. Ron T. Halfmoon, nuclear waste manager for the Nez Perce Tribe.

Mrs. LLOYD. We are happy to have you with us, Mr. Halfmoon, as well.

Please proceed.

Mr. WHITE. Madam Chairman, members of the Subcommittee on Energy Research and Production, my name is Del T. White. I am the assistant secretary/treasurer of the Nez Perce Tribal Executive Committee, known as NPTEC, which is the governing body for the Nez Perce Tribe of Idaho.

I would like to thank you for extending an invitation to the Nez Perce Tribe to present testimony on the May 28, 1986, decision by the President and by the Secretary of Energy on the first and second high-level radioactive waste repository.

We are pleased that you will consider our comments as you deliberate on the reasoning which led to these decisions.

In addition to my duties as a NPTEC member, I also chair the Nez Perce Special Nuclear Waste Subcommittee. The subcommittee has the responsibility of overseeing the tribe's Nuclear Waste Policy Act program.

The subcommittee consists of five NPTEC members and we meet at least twice monthly to regularly discuss and act on nuclear waste issues. Like I said before, Mr. Halfmoon is accompanying to provide this testimony.

In 1984 the Nez Perce Tribe was certified as an affected tribe under provisions of the Nuclear Waste Policy Act of 1982 by the Secretary of the Department of Interior.

The tribe's standing as an affected tribe is based upon the impact that a nuclear waste repository at the Hanford site in the State of Washington would have on tribes treaty rights. Thus, we have a substantial interest in the Department of Energy's decision to conduct site characterization studies for the Hanford site.

However, our interests go beyond the Hanford site. By postponing a second repository, DOE has insured that only the first-round States and tribes have to deal with the issue of nuclear waste.

Our first concern is a question: How do the Presidential and secretarial actions satisfy the statutory requirements of the Nuclear Waste Policy Act of 1982?

From our reading of the section 112(b)(1)(C) of the act, it appears that the Secretary on or before July 1, 1989, is required to nominate the five sites and recommend three additional sites for site characterization for a second repository.

The statutory language does not appear too discretionary. It states that the Secretary shall act as is prescribed in that portion of the law.

DOE, however, in postponing indefinitely the second repository, has chosen to ignore a critical part of the act.

As you know, DOE is required to nominate five sites for the second repository less than 3 years from today. The nomination process will require extensive onsite characterization of specific geologic media—a task difficult, if not impossible to accomplish unless preliminary work is undertaken today.

In addition, a number of sites in different geologic media will be nominated, and presumably, these nominations will be identified from sites which are not just basalt, tuff or bedded salt. This process cannot take place through generic presite characterizations.

We believe that May 28 decision places an extraordinary burden on the Western States and affected tribes. We believe that DOE's action was politically motivated and the result of publication and public hearings concerning the area review report.

As you know, this report narrowed second round potentially acceptable sites to seven Eastern States. This political pressure eventually became manifest as a congressional initiative spearheaded by a Maine Congressman who prepared a bill for introduction to this Congress which would legislatively exclude the granite sites for consideration as a second repository.

The arguments espoused by the Secretary of DOE in defense of his decision somehow were not convincing to the Nez Perce Tribe. For example, the data base, which was relied upon as the basis for stating that spent fuel inventories and projections, were significantly less than was initially projected in 1982 came from a source which had limited prior distribution and was unknown to the tribe. This new-found information came as a surprise to the tribe.

We are equally skeptical of the methodology used by DOE to select Hanford, Yucca Mountain and Deaf Smith as appropriate for site characterization. It appears that the multiattribute utility analysis system which ostensibly was the management tool in arriving at a rank order of five potentially acceptable sites was less a

factor in the decision to include Hanford among the top three than a provision in the act which requires the Secretary to consider the various geological media in which sites for repositories may be located and to the extent practicable, to recommend sites in different geologic media.

A close analysis of the multiattribute utility analysis indicates that the Hanford site ranks fifth of the sites.

To quote the report: "The composite overall ranking under a wide range of assumptions is Yucca Mountain, Richton Dome, Deaf Smith, Davis Canyon and then Hanford." (A Multiattribute Utility Analysis of Sites Nominated for Characterization for the First Radioactive-Waste Repository; this was a decision-aiding methodology.)

In other words, the technical reviews conducted by panels of technical specialists on the following factors: Post-closure repository performance; preclosure radiological safety; environment; socioeconomic; transportation; and, ease and cost of siting, construction, operation, and closure were effectively negated because the three top ranked sites were in volcanic tuff, domed salt and bedded salt.

Thus, a determination of an initial order of preference was conducted based on the technical qualities of each site; then geological diversity guidelines were applied wherein Hanford was upgraded from No. 5 to No. 3. The upshot of this methodology is that the three best sites were not selected for characterization.

In recent days, an additional deficiency has come to our attention. It is our understanding that the work papers actually utilized by the DOE decisionmakers in the ranking process have been destroyed.

Congressman Markey had requested this data from DOE, according to a Seattle newspaper, but the article states that there is a good chance that this was lost or destroyed. Such news articles are not encouraging, particularly since there has been no public comment from top DOE officials. Such news only serves to widen the credibility gap which we feel now exists more than ever.

On the subject of issues relating to consultation and cooperation and siting and the development of the first repository, our major concern is the quality of our participation. It can be safely stated that we are not consulted in the manner which is described in the siting guidelines wherein "timely and complete information regarding determinations, plans—made with respect to siting, site characterization, design, development, construction, operation, closure, decommissioning, licensing and regulation of a repository," is routinely provided to the Nez Perce Tribe by virtue of our status as an affected tribe pursuant to the Nuclear Waste Policy Act.

While we do not deny that we have been provided with an opportunity to express our views, we question the degree to which DOE considers and accommodates those views. More often, we observed that DOE is unresponsive to tribal and state concerns.

Several recent examples come to mind. The first example involved the quarterly status meeting held in April in Albuquerque, NM. DOE conducted the meeting, not as a dialog with affected tribes and States, but as a briefing on the status of repository pro-

gram activities. Our representatives left that meeting feeling cheated of the opportunity to express the tribe's views.

DOE's unresponsiveness to tribal and State concerns is exemplified by its actions regarding the imminent release of the final environmental assessments, EA's, for the proposed repository sites. At the quarterly meeting in Albuquerque in April, the tribes and states requested 30 days notice prior to release of EA's.

At that time, DOE reluctantly indicated it would try to provide 2 weeks notice regarding issuance of the EA's. Perhaps our message was not that clear because our request was never acknowledged and, we were given only one half hour notice.

Our chairman, J. Herman Reuben, received a telephone call from Ben Easterling from DOE, Washington, DC, at 10:30 a.m., Pacific daylight time, on May 28, 1986, only one-half hour before the national media was informed through a press conference being held at 11 a.m., Pacific daylight time, in Washington, DC.

In summary, it is evident to the Nez Perce Tribe that there is much for the Department of Energy to learn and understand about the Nez Perce Tribe and how the Nez Perce Tribal Executive Committee exercises jurisdiction over the protection of the environment within its respective possessory and usage rights. Much progress has been made by virtue of the provisions of the Nuclear Waste Policy Act which require our participation and we are appreciative of the legislative process which recognized the necessity for the tribes to be informed on matters which may have substantial and adverse effect to respective possessory and usage rights.

Again, I would like to thank you for this opportunity to express our concerns and your attention to our testimony. We will be pleased to respond to any questions that you may have, Madam Chairperson.

[The prepared statement of Mr. White follows:]

Nez Perce

NUCLEAR WASTE POLICY ACT PROGRAM



(208) 843-2253

Testimony of the Nez Perce Tribe
Before the Committee on Science and Technology
House of Representatives
July 22, 1986

Madam Chairman, Members of the Subcommittee on Energy
Research & Production:

My name is Del T. White. I am the Assistant
Secretary/Treasurer of the Nez Perce Tribal Executive
Committee, known as NPTEC, which is the governing body for the
Nez Perce Tribe of Idaho.

Thank you for extending an invitation to the Nez Perce
Tribe to present testimony on the May 28, 1986 decision by the
President and by the Secretary on Energy on the First and
Second High Level Radioactive Waste Repositories. We are
pleased that you will consider our comments as you deliberate
on the reasoning which led to these decisions.

In addition to my duties as a NPTEC member, I also
chair the Nez Perce Special Nuclear Waste Subcommittee. The
subcommittee has the responsibility of overseeing the Tribe's
Nuclear Waste Policy Act Program. This subcommittee consists
of five NPTEC members, and we meet at least twice monthly to
regularly discuss and act on nuclear waste issues. Accompanying
me today is Ronald T. Halfmoon, the Nez Perce - Nuclear Waste
Policy Act Program Manager.

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In 1984, the Nez Perce Tribe was certified as an affected tribe under provisions of the Nuclear Waste Policy Act of 1982 by the Secretary of the Department of the Interior. The Tribe's standing as an affected Tribe is based upon the impact that a nuclear waste repository at the Hanford site in the State of Washington would have on the Tribe's treaty rights. Thus, we have a substantial interest in the Department of Energy decision to conduct site characterization studies for the Hanford site. However, our interests go beyond the Hanford site. By postponing a second repository, DOE has insured that only the first round states and tribes have to deal with the issue of nuclear waste.

Our first concern is a question: How do the presidential and secretarial actions satisfy the statutory requirements of the Nuclear Waste Policy Act of 1982? From our reading of Section 112(b)(1)(C) of the Act, it would appear that the Secretary on or before July 1, 1989, is required to nominate five sites and recommend three additional sites for site characterization for a second repository. The statutory language does not appear to be discretionary -- it states that the Secretary "shall" act as is prescribed in that portion of the law. DOE, however, in "postponing indefinitely" the second repository, has chosen to ignore a critical part of the Act. As you know, DOE is required to nominate five sites for the second repository less than three years from today. The nomination process will require extensive pre-site

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characterization of specific geologic media -- a task difficult, if not impossible to accomplish unless preliminary work is undertaken today. In addition, a number of sites in different geologic media will be nominated, and presumably, these nominations will be identified from sites which are not just basalt, tuff or bedded salt. This process cannot take place through "generic" pre-site characterization.

We believe the May 28th decision places an extraordinary burden on the western states and affected tribes. We believe that DOE's action was politically motivated and the result of the tremendous political pressure which evolved as a result of publication and public hearings concerning the Area Review Report. As you know, this report narrowed second round potentially acceptable sites to seven eastern states. This political pressure eventually became manifest as a congressional initiative spearheaded by a Maine Congressman who prepared a bill for introduction to this Congress which would legislatively exclude the granite sites for consideration as a second repository.

The arguments espoused by the Secretary of DOE in defense of his decision somehow were not convincing to the Nez Perce Tribe. For example, the data base which was relied upon as the basis for stating that spent fuel inventories and projections were significantly less than was initially projected in 1982 came from a source which had limited prior distribution and was unknown to the Tribe. This new found information came as a surprise to the Tribe.

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We are equally skeptical of the methodology used by DOE to select Hanford, Yucca Mountain and Deaf Smith as appropriate for site characterization. It appears that the multiattribute utility analysis system which ostensibly was the management tool in arriving at a rank order of five potentially acceptable sites was less a factor in the decision to include Hanford among the top three than a provision in the Act which requires the Secretary "to consider the various geologic media in which sites for repositories may be located and, to the extent practicable, to recommend sites in different geologic media." (Section 112(a) NWPA). A close analysis of the multiattribute utility analysis indicates that the Hanford site ranks fifth of the sites. To quote the report: "The composite overall ranking under a wide range of assumptions is Yucca Mountain, Richton Dome, Deaf Smith, Davis Canyon and Hanford." (Page 5-16, DOE/RW 0074, A Multiattribute Utility Analysis of Sites Nominated for Characterization for the First Radioactive-waste Repository -- a Decision-aiding Methodology). In other words, the technical reviews conducted by panels of technical specialists on the following factors: postclosure repository performance; preclosure radiological safety; environment; socioeconomics; transportation; and, ease and cost of siting, construction, operation, and closure were effectively negated because the three top ranked sites were in volcanic tuff, domed salt and bedded salt. Thus, a determination of an initial order of preference was conducted

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based on the technical qualities of each site; then geological diversity guidelines were applied wherein Hanford was upgraded from number five to number three. The upshot of this methodology is that the three best sites were not selected for characterization!

In recent days, an additional deficiency has come to our attention. It is our understanding that the work papers actually utilized by the DOE decision-makers in the ranking process have been destroyed. Congressman Markey had requested this data from DOE, according to a Seattle newspaper, but the article states that there is a good chance that this was lost or destroyed. Such news articles are not encouraging, particularly since there has been no public comment from top DOE officials. Such news only serves to widen the credibility gap which we feel now exists more than ever.

On the subject of issues relating to consultation and cooperation on siting and the development of the first repository, our major concern is the quality of our participation. It can be safely stated that we are not consulted in the manner which is described in the siting guidelines wherein "timely and complete information regarding determinations, plans . . . made with respect to siting, site characterization, design, development, construction, operation, closure, decommissioning, licensing and regulation of a repository . . ." is routinely provided to Nez Perce Tribe by

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virtue of our status as an affected tribe pursuant to the Nuclear Waste Policy Act.' While we do not deny that we have been provided with an opportunity to express our views, we question the degree to which DOE considers and accommodates those views. More often, we have observed that DOE is unresponsive to Tribal (and State) concerns. Several recent examples come to mind. The first example involved the quarterly status meeting held in April in Albuquerque, New Mexico. DOE conducted the meeting, not as a dialogue with affected Tribes and States, but as a briefing on the status of repository program activities. Our representatives left that meeting feeling cheated of the opportunity to express the Tribe's views.

DOE's unresponsiveness to Tribal and State concerns is exemplified by its actions regarding the imminent release of the final Environmental Assessments (EAs) for the proposed repository sites. At the quarterly meeting in Albuquerque in April, the Tribes and States requested 30 days notice prior to release of the EAs. At that time, DOE reluctantly indicated it would try to provide two weeks notice regarding issuance of the EAs. Perhaps our message was not that clear because our request was never acknowledged and, we were given only one half hour notice. Our Chairman, J. Herman Reuben, received a telephone call from Ben Easterling from DOE, Washington, D.C., at 10:30 a.m. Pacific Daylight time on May 28, 1986, only one half hour before the national media was informed through a

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press conference being held at 11:00 a.m. Pacific Daylight time in Washington, D.C.!

In summary, it is evident to the Nez Perce Tribe that there is much for the Department of Energy to learn and understand about the Nez Perce Tribe and how the Nez Perce Tribal Executive Committee exercises jurisdiction over the protection of the environment within its respective possessory and usage rights areas. Much progress has been made by virtue of the provisions of the Nuclear Waste Policy Act which require our participation and we are appreciative of the legislative process which recognized the necessity for the Tribes to be informed on matters which may have substantial and adverse effect to respective possessory and usage rights. Thank you for this opportunity to express our concerns and your attention to our testimony. We will be pleased to respond to any questions.

Mrs. LLOYD. Thank you very much, Mr. White, for your very excellent testimony.

Mr. White, since all three of the States had a 99.9 plus percent rating or above, and since the Nuclear Waste Policy Act specifies that whenever practical the sites should be in three different geologic media, and since Washington, and Nevada, and Texas are in different geologic media, do you really feel that the Department is unreasonable in looking these three sites?

Do you feel since the requirement was to have three, the three sites were picked in different geologic media; would you comment on this for us, please?

Mr. WHITE. Well, I think that provision of the act—I had time, looking at that provision—and I already looked at that—to me it didn't require to get three different geologic media. It was only to consider, you know.

Mrs. LLOYD. So you feel that this should not have been the No. 1 criteria?

What do you think the first criteria should have been, Mr. White?

Mr. WHITE. Well, on the technical merit, as we have stated in that multiattribute utility system that was conducted.

Mrs. LLOYD. Some people are saying that the Congress should amend the Nuclear Waste Policy Act if the second repository is delayed; do you agree that the Congress should delay for the second repository, the act should be amended if the second repository is not made?

Mr. WHITE. If I understand your question right, do you mean that to delay the followings of the provisions dated—

Mrs. LLOYD. Do you think the Nuclear Waste Policy Act should be amended if the Department of Energy does not name a second site, if the Department of Energy delays the second site; do you think we should change the act?

Mr. WHITE. Well, just on that one provision of delaying, the extension on that part you are asking about, the second repository, but I would not delete it from the act.

Mrs. LLOYD. Thank you very much.

Mr. Morrison.

Mr. MORRISON. Mr. White, what are your treaty rights that led you to become an affected tribe?

Mr. WHITE. What are our treaty rights?

Mr. MORRISON. Yes.

Mr. WHITE. To give you a little history on the Nez Perce Tribe, we are located in Idaho, but we have regional boundaries. When you first talk about Nez Perce Tribe, it included the State of southeastern Washington and the northeastern part of Oregon, and also included part of the State line of Montana and Attoboro. But where it comes into play, even though the Hanford site is not specifically on a reservation, we have what you call seated rights that were never distinguished in our treaty as it was signed, and that comes into possessory usage rights, which are included in our seated area, and that includes Columbia River.

Mr. MORRISON. So historically, then, you use the same area as the Yakimas because they have the same interest in the Hanford Reservation.

Mr. WHITE. Yes, that is correct.

Mr. MORRISON. So you have shared those areas with other tribes.

Mr. WHITE. Yes, we have.

Mr. MORRISON. So you all have, then, some claim as affected tribes.

Mr. WHITE. Right. The tribes all have the same similar type language.

Mr. MORRISON. Thank you.

I notice in your testimony you have indicated that during the proceedings with the Department of Energy that you have had an opportunity to express your views, but then you have proceeded to say that those views essentially were disregarded by the Department of Energy.

I guess my question for you is one of the next steps under the Nuclear Waste Policy Act is to pursue the consultation and cooperation agreements. Is there any way that you are going to be willing to cooperate with the Department of Energy as we proceed?

Mr. WHITE. At this time, we are contemplating a consultation cooperation agreement, but we will just go along in accordance with time lines as stated in the Nuclear Waste Policy Act, so at that time we will make a decision when the deadline is upon us.

Mr. MORRISON. Has the Department been negotiating with you, or have their been offers back and forth as far as any specifics of that cooperation?

Mr. WHITE. No, they haven't.

Mr. MORRISON. But your plans are when they make a proposal to consider what they are indicating to you and make a decision at that time?

Mr. WHITE. Yes.

Mr. MORRISON. Do you sense that the working relationship has been damaged irreparably or that you can have a very open discussion with them and hopefully reach some conclusions?

Mr. WHITE. I can say that it hasn't been damaging beyond any kind of—be able to fix it up, in other words, but once we sit down and talk and see the agreement, I think we can resolve some of the disputes, any kind of actions that we may want to resolve at that time. But I think we are very open right now to listen to their concerns and to present our concerns also, because I don't think we ever sat down at a table across like we are right now and told them of our main concerns.

Mr. MORRISON. Thank you. Thank you, Madam Chairman.

Mrs. LLOYD. Thank you very much, Mr. Morrison.

Before I call the next witnesses, who are here now, to the witness table, I would like to recognize the gentleman from Texas, Mr. Combest, for a unanimous consent request.

Mr. COMBEST. Madam Chairman, thank you. I do have a statement, and for the sake of time, I would ask unanimous consent to insert it into the record.

Mrs. LLOYD. Without objection, it will be made a part of our record.

[The prepared statement of Mr. Combest follows:]

STATEMENT BY

THE HONORABLE LARRY COMBEST
UNITED STATES REPRESENTATIVE

SUBMITTED TO

COMMITTEE ON SCIENCE AND TECHNOLOGY
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION
U.S. HOUSE OF REPRESENTATIVES

JULY 22, 1986

Mr. Chairman:

I appreciate the opportunity to express to the Committee my serious concerns with the implementation of the Nuclear Waste Policy Act and with several of the actions taken by the U.S. Department of Energy. I also applaud the Committee for conducting this hearing for the questions surrounding this issue will demand the time and attention of the Congress for some time to come.

I believe that the authors of the Nuclear Waste Policy Act established policies and procedures which go far toward meeting Congress' goal of safe and acceptable storage of high level waste. My concerns revolve around whether the DOE is presently implementing those policies to the letter and the spirit of the law. Recent actions by the Department, such as the "indefinite postponement" of second repository site identification activities and the serious questions raised over site-ranking methodology application, create a reasonable justification for inquiry.

The lack of attention given to these critical matters is indicative of DOE's continued failure to comply with the

criteria set forth in the NWPA, and the basis for my continued insistence that the DOE must address these questions before it progresses further in its identification agenda.

As Representative of Deaf Smith County, one of the proposed repository sites, I am concerned that the two environmental properties which make this proposed site unique, the rich farmland of the area and the Ogallala Aquifer that lies under the proposed drilling site, have not been given appropriate and prudent consideration in the DOE's attempt to meet statutory deadlines set forth in the Act.

The Ogallala is one of the nation's most important underground water sources. This natural reservoir is available as a water source to some two million people in eight states. In addition, the aquifer provides irrigation water to the area which has an economy almost exclusively dependent upon the agricultural production made possible by this irrigation.

A substantial number of serious challenges to the assumption regarding DOE's assessment of the repository's impact on the aquifer, even in the the characterization process, have been

raised by reputable experts in the fields of geodynamics and geophysics. To this date, the DOE has failed to provide any adequate or substantive information to negate these concerns, nor have they indicated that further studies will be conducted to assess the validity of such challenges. At best, the inability of the Department to address these matters is alarming. A radioactive leak into the aquifer would be catastrophic for the region and its rich agriculture base, and for all of the eight states that rely on the aquifer.

As I stated, agricultural production is the foremost industry in the region; and while the social and economic impact of repository selection is not the focus of our hearing today, I think it is critical to bear in mind that the environmental impact on the soil surface of the area could be devastating to the area's well-being. Repository construction would require the acquisition of some 5760 acres, one full percent of the county's available cropland. The need to feed hungry people into the next century should not be overlooked.

At times, it appears that the DOE is on a predetermined, preconceived course in its efforts to identify a nuclear waste storage facility. The NWPA was designed to preclude political

considerations entering into the site selection process. The legislation uses a very specific set of instruction and criteria to accomplish its mission of identifying a disposal facility to store waste in absolute safety. A national survey of geological media was one of the most important stipulations set forth in this very complex and delicately-balanced policy. With the suspension of second site activities, the DOE appears to have violated the letter and intention of the law.

Last week, I made an effort to suspend Nuclear Waste Program funding in the Energy and Water Development Appropriation Bill until the Congress has the opportunity to appoint an independent commission to review DOE's civilian nuclear waste program and report its findings. Only after being assured that the Department has acted in complete accordance with the NWSA act would funding be reinstated. That effort was not successful, but I will continue to pursue a halt of DOE repository activities until we in the Congress can determine if the intent of the NWSA is being fulfilled by DOE policy.

I believe that the people would be willing to accept a repository if they are irrevocably assured of its safety, as was intended in the law. Until that absolute assurance of safety

and technical perfection are forthcoming, I will continue to oppose further DOE siting activities.

Mrs. LLOYD. Thank you, Mr. White. Thank you, Mr. Halfmoon, for being witnesses today. We do appreciate your testimony so very much.

We are delighted to have with us two more of our colleagues, the Honorable Beau Boulter from Texas from the 13th district, and we are also happy to have my colleague, James Weaver, from Oregon who came in with me in the 94th Congress, and we are happy to have both of you with us. If both of you will come to the witness table, we are very happy to have your testimony. Your entire statement will be made a part of the record. You may summarize as you wish, and your entire statement will be made a part of it.

Mr. Weaver.

**STATEMENT OF HON. JAMES WEAVER, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF OREGON**

Mr. WEAVER. Thank you, Madam Chairman, for calling this hearing. Although I am not from one of the three States chosen by the DOE for the first repository, my State of Oregon would certainly be affected by the Hanford site in Washington State. The Hanford site is a mere 6 miles from the Columbia River, which forms the border between Washington and Oregon.

Downstream on the Columbia lies Oregon's largest population center, Portland, with 40 percent of the population of the entire State of Oregon directly down river from the Hanford site, so therefore actually Oregon would be the most affected State in terms of population. I welcome, of course, working with the direct State, Washington, but I feel that the DOE should consider our request to make Oregon an affected State.

They have refused to do so. I have submitted legislation that would make Oregon an affected State, and I would like to see that legislation go through, or better, have the DOE simply consider, as it should, Oregon with its population center directly at prejudice from the Hanford site.

I held a hearing in my general oversight subcommittee, Madam Chairman, on this issue, and I asked Mr. Rusche which site performed worst in the area of radiological fatalities. His answer was Hanford. I then asked him which site performed worst in worker fatalities; his answer was Hanford. Public fatalities, distance for shipping the waste, cost of repository construction and operation, in each case the site with the lowest rating he admitted was Hanford.

But then what happened? They nominated Hanford even though it was lowest on all of these. And I would like to answer a question, if I might, Madam Chairman, that you raised with the last witnesses, and you asked about the geologic diversity. As one of the people who wrote the bill in the Interior Committee, geologic diversity was the last criterion. It was the lowest criterion.

As a matter of fact, it was so low we gave it a different context than the others. We said only to the extent practicable should geological diversity be considered. It was the lowest criterion. The others were considered—transportation, radiological fatality, et cetera, were considered—and hydrology in particular—were consid-

ered by far the highest. They were given as criteria without qualification.

You also asked, Madam Chairman, about a second site. Let me say that I will be offering an amendment tomorrow to the energy appropriations bill withdrawing funds, \$291 million for characterization studies of the three nominated sites. I don't believe the second site should go through either. I think that the DOE has made a political mess of this whole waste repository study and the Waste Repository Act. They should have made a straight engineering decision, and they didn't. They compounded error after error with political decisions.

Mrs. LLOYD. Mr. Weaver, did you vote for the Nuclear Waste Policy Act?

Mr. WEAVER. Ma'am, I was one of two members of the Interior Committee to vote, no—43 yes and 2 no. Congressman Markey and I were the two that voted no.

Mrs. LLOYD. Do you think the Nuclear Waste Policy Act should be amended if we do not chose the second repository?

Mr. WEAVER. I believe that we should tell the DOE to go back and do a straight engineering study and make their conclusions based on that engineering study. I don't want to see a second site or a first site until they get their act in order. Absolutely.

I think that they have—let me give you an example of the disarray that DOE is in now. Two months ago, they terminated all research on the sites that had been nominated, and because they had not collected and put down in order the data, it was just a mess, and nobody knows this. We have been trying to confirm this now all day, and the DOE, at first didn't admit it, and now they have admitted it.

I knew personally, because I talked to the people on the site. They told me it had been stopped, the research, and the collation and the data had been stopped, but now we have got an answer just now from the DOE that they have required a delay. They don't know how long it is going to be delayed. Their data has gone in incorrectly. Their books are a mess, and this is no way to build a base to go ahead with the work on characterization of sites, and so therefore on behalf of both the East and the West, on behalf of both the first and second repository possible sites, I say a delay now is in order, Madam Chairman.

Mrs. LLOYD. Are you saying that the Department of Energy has delayed all site characterization?

Mr. WEAVER. They did this 2 months ago. They stopped the work of Rockwell and other contractors on quality assurance work and repository siting, recordkeeping and documentation, because it was in such a mess.

Mrs. LLOYD. Doesn't the site have to be approved by the NRC before they can continue?

Mr. WEAVER. Excuse me?

Mrs. LLOYD. Doesn't the site characterization have to be approved by the NRC before they can continue?

Mr. WEAVER. Yes, ma'am.

Mrs. LLOYD. And they have not proceeded further.

Mr. WEAVER. The DOE just stopped this on their own. This was about 2 months ago. They found out that their records and docu-

mentation were in such a mess they couldn't be read. They were improperly transcribed, et cetera. They said, "Oh, my gosh. This is terrible. We are just going to have to stop it all and try to get it in order."

Mrs. LLOYD. Mr. Weaver, we will pursue this further with the Department of Energy.

Mr. WEAVER. Madam Chairman, I want to thank you very much. [The prepared statement of Mr. Weaver follows:]

TESTIMONY OF REPRESENTATIVE JIM WEAVER
BEFORE THE SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION,
COMMITTEE ON SCIENCE AND TECHNOLOGY
JULY 22, 1986

Thank you, Madam Chairman, for calling this hearing and for allowing me the opportunity to testify before your subcommittee.

Although I am not from one of the three states chosen by DOE for the first repository, my state of Oregon would certainly be affected by the Hanford site in Washington State. The Hanford site is a mere six miles from the Columbia River, which forms the border between Washington and Oregon. Downstream on the Columbia lies Oregon's largest population center, Portland. An accident at the Hanford site would certainly affect a large portion of Oregon's population. Yet, I might add, Madam Chairman, that despite my requests and those of Oregon state legislators, DOE has refused to consider Oregon an "affected state" in the sense that we have the same standing as Washington State to have input into the siting decision.

I think the attitude of DOE in this instance is indicative of the agency's overall attitude in the nuclear waste program. Not only have they not considered Oregon an affected state, but according to a draft GAO report, they have mismanaged their relationships with states and tribes they do consider affected. For DOE, it has been politics before science all along, and I'm afraid it will take politics on our part to get DOE back on the scientific track.

At a hearing I held June 9th on DOE's repository decision, I asked Mr. Rusche which site, according to the Department's own

decision-aiding methodology, performed worst in the area of radiological fatalities. His answer: Hanford. I then asked him which of the sites performed worst in worker fatalities. His answer: Hanford. I asked Mr. Rusche about public fatalities, distance for shipping the waste, and the cost of repository construction and operation. In each case, the site with the lowest rating, he admitted, was Hanford. In fact, in both the overall evaluation of pre-closure criteria and the overall evaluation of post-closure criteria, Hanford, by Mr. Rusche's own admission, ranked last.

This begs the question: How did a site ranked fifth and last make it into the final three? The justification DOE gives is most interesting. DOE says all five nominated sites meet EPA standards for a repository, and since any of them will do, we might as well pick three sites with "geologic diversity of media" -- in other words, three different rocktypes. Lo and behold, since three of the sites are salt, that means choosing just one of them, and then filling the other two slots with the rocktypes tuff and basalt -- basalt being the Hanford site. That's how Hanford wound up being elevated to the final three. And that's also how Richton Dome, Mississippi was dropped from the final three.

There are three things wrong with DOE's use of the rocktype diversity argument. Number one, it violates the intent, if not the letter, of the law. The Nuclear Waste Policy Act of 1982 explicitly considered geologic diversity and rated it a minor criterion for site selection, to be considered only "to the

extent practicable." But DOE elevated it over the Act's primary criteria -- hydrology, geophysics, seismicity, distance from water supplies and populations, proximity to sites where the waste is generated, and transportation hazards and cost.

The second thing wrong with DOE's approach is that it ignores uncertainty. While DOE's so-called "Decision-Aiding Methodology" may show all five sites meeting EPA standards, it also shows that there are very large differences between the sites. Given all the unknowns and possibly large margins of error inherent in such an undertaking, the wisest course of action would be to pick the three sites that best meet the standards. Using rocktype diversity as the final decision-making criterion ignores the uncertainty element.

The third thing wrong with DOE's rocktype diversity approach is that DOE does not define rocktype diversity. The three salt sites can actually be considered geologically diverse if you distinguish between domed salts and bedded salts.

Finally, and most damaging is that DOE never made known the possibility that rocktype diversity would be elevated to such an important status. We had no advance notice that DOE would be weighting this particular criterion so heavily. That was either kept hidden from the public or was pulled out of the hat at the last moment for political reasons. Either way, Madam Chairman, it was not a professional approach.

I want to know why diversity was considered by DOE to be such an important factor at this particular cut, in moving from five sites down to three. Why wasn't it important in earlier

cuts? Add to this mystery the fact that Mr. Rusche told me that another criterion, dollar cost, was not weighted heavily in making this decision. Yet I read in a recent interview with Mr. Rusche where he says that cost will play a larger role in determining which of the three sites becomes the final one. How was it decided that the cost criterion would be unimportant at one step and important at the next step? Through manipulations of when to apply various criteria and how heavily to weight them, you can come up with any result you want.

Where is the overall methodology that shows in advance what criteria will be included in the analysis and how they will be weighted? We have zero information on the process DOE used to make the leap from their so-called "Decision-Aiding Methodology" to their decision. All we have is the Decision-Aiding Methodology; where's the decision-making methodology? Without that, we are forced to reach the conclusion that Hanford was selected for political reasons.

I wouldn't be surprised if DOE performed a similar sleight of hand with the Deaf Smith and Yucca Flats site selections. I don't know enough about those sites, but I do know that our experience with the Hanford selection raises serious questions about the overall efficacy of DOE's approach.

Madam Chairman, tomorrow I will be offering an amendment to the Energy and Water Appropriations Bill to cut \$291.2 million in FY 1987 funds for the site characterization process at the three recommended first-round sites. There have been enough serious concerns raised about the selection process that I think we need

to stop and take a careful look at what DOE has done. Depending on what we find from a careful analysis, we will know how to set DOE back on the correct course. My amendment is not an attempt to get the repository located in an eastern state. It is an attempt to stop and examine DOE's process for deciding on the three primary sites.

I hope members of this committee will support my amendment. Nuclear waste must be isolated from the environment for millennia, and we should not rush into a decision in one day that will move us down the wrong course.

Thank you very much Madam Chairman for the opportunity to testify today.

Mrs. LLOYD. Mr. Boulter, would you proceed with your testimony? We are happy to have you, and your entire statement will be made a part of the record. You may proceed as you wish.

**STATEMENT OF HON. BEAU BOULTER, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF TEXAS**

Mr. BOULTER. Thank you very much, Madam Chairman, and members of the subcommittee. I'm not going to burden you with an attempt to try to fully express my own sense of outrage at the incompetence, the disdain, the high-handedness, the arrogance of the process that has characterized the DOE's process in selecting potential sites for a permanent nuclear waste repository.

I think it is clear that the whole process has now blown up in the Department of Energy's face, because of the way it has been handled. If there is any project that our society should want to do right, it is this one. If there is any process that our people are entitled to have complete and total faith in, it is this process to choose a nuclear waste repository site, and I have wanted to believe that, Madam Chairman. I have strongly wanted to believe that there was no politics involved; that the process was proceeding on a purely technological basis as called for in the act in a scientific manner, but several things have happened since I was sworn in in January 1985, which strongly indicate that that just isn't so, and the decision to indefinitely postpone the second site seems to be clear evidence that factors other than scientific factors were involved.

It seems to me that the law very clearly requires a second site, and it raises the decision to postpone it, it raises the issue of trust in the process, and we can't afford that. Then, of course, not long ago we learned that if you just look at scientific data, it would seem that the Richton Dome site in Mississippi should have been one of the three sites, and yet it is not even being considered for site characterization.

In the performance measure categories of radiological fatalities, worker fatalities, public fatalities, overall health and safety, the Richton Dome site is rated far better than the Deaf Smith County Site, but it is not even being considered, and then, third, Madam Chairman, there is the matter of the investigation into the decisional type of documents that DOE used in going through the process up until today.

Mrs. LLOYD. Mr. Boulter, isn't the media in Texas the very same media as the site in Mississippi?

Mr. BOULTER. Well, the media in Texas is bedded salt; the Mississippi site is dome salt.

Mrs. LLOYD. Thank you.

Mr. BOULTER. I do think it is strange, Madam Chairman, that when requested to furnish the decisional documents, the Department of Energy says it didn't retain those documents, so there is any number of reasons why the process is under suspicion right now, and yet the DOE seems to have a hurry up and drill at any cost mentality, and, frankly, Madam Chairman, I do represent a lot of farmers. Congressman Combest represents a lot of farmers. Our farmers aren't in any better shape than any farmers anywhere in

the world, but they do have fertile land to farm on, and that is because of the Ogallala aquifer, and the DOE is planning to drill two 12-foot diameter shafts through, not only the Ogallala aquifer, but also through the Santa Rosa aquifer, to a depth of over 2,500 feet.

I can't sit by idly and allow that to happen without having some faith that the process has been legitimately followed in accordance with the act. So for that reason, many of us believe that the Department of Energy should be restrained. I fully support Mr. Weaver's bill. I fully support Congresswoman Vucanovich's bill which says, "Let's start the process all over." I, frankly, think that we should, as Congress, appoint an independent commission to report back to us on whether the Department of Energy has fully complied with the act and not make any funds available until that is done. Thank you very much.

[The prepared statement of Mr. Boulter follows:]

CONGRESSMAN BEAU BOULTER
TESTIMONY BEFORE THE COMMITTEE ON SCIENCE AND TECHNOLOGY,
U.S. HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION
JULY 22, 1986

Madame Chairman, and members of the Subcommittee, thank you for the opportunity to appear before you today, and express my outrage over the process employed by the Department of Energy in selecting sites for this nation's first high-level commercial nuclear waste storage facility.

I won't lecture you today on the dangers an inadequately researched storage facility could pose to both our environment and posterity. I am led to believe that there are quite enough people who will be more than willing to testify to you on that point. Today I would like to testify to the fact that even with the dangers posed, the Department of Energy is planning to move forward in a process which will almost surely ensure the construction of an inadequately researched nuclear waste storage facility.

On May 28th of this year, Madame Chairman, Secretary of Energy John S. Herrington announced that the Department of Energy was planning to "postpone indefinitely" the selection of a second disposal site in the Eastern U.S. This decision is one example in a long line of actions that indicate the DOE's willingness to ignore the spirit, if not the letter, of the Nuclear Waste Policy Act of 1982.

The selection of this second site is a key balancing point in the compromise which resulted in the enactment of the Nuclear Waste Policy Act, and the termination of the second repository program is a clear violation of that law. But more importantly by "postponing" consideration of the Eastern U.S., the Department

(2)

of Energy has failed to include all areas and geologies in its deliberations. This means that the site finally chosen for the storage facility can't possibly be the result of the best selection process the U.S. government can offer.

This decision on the Department of Energy's part also lends support to the belief that politics, rather than science and safety, are driving this nation's search for a high-level nuclear waste repository. A national policy for the storage of nuclear waste is essential Madame Chairman, but we must realize that any decision made on this issue can have dire repercussions for over 10,000 years. Any choices made are ones with which future generations must. Thus, it is our responsibility to ensure that the disposal method and site chosen are the best and safest available.

The three sites DOE has chosen, however, may not in fact be the best and safest available. By following the methodology for selection which the DOE originally proposed, and which received the approval of the National Academy of Sciences, a site in Richton Dome, Mississippi should have been among the three finalists chosen for site characterization.

In the performance-measure categories of radiological fatalities, worker fatalities, public fatalities, and overall health and safety, the Richton Dome site rated better than the Deaf Smith County Site, yet Richton Dome is not even being considered for final selection. Given this evidence, can we honestly continue to assert that the DOE is implementing a selection process which is going to, without a doubt, ensure the

(3)

selection of the safest alternative available? With a clear conscience, I know I can't.

In a similar vein, Madame Chairman, an investigation is underway by two Members of this body into charges that the DOE discarded documents from an earlier stage of the site selection process. These documents allegedly substantiate charges being made that the DOE is indeed moving toward selection of a site which is not the safest alternative available.

Madame Chairman, the DOE is prepared to begin the site characterization process in Deaf Smith County, Texas at the first available opportunity. They are ready to begin drilling two twelve foot shafts over 2,500 feet into Panhandle soil.

If permitted, these shafts will penetrate two aquifers, and finally, a salt formation. Drilling through the aquifers alone will be a miraculous effort. Previous attempts to do this have been limited to one foot diameter shafts which have leaked profusely. Still, the DOE has assured my constituents that the technology necessary for this activity, while not currently up to par, is just around the corner.

Madame Chairman, I don't have to begin explaining to you, or any other Member of Congress, that the plight of the American farmer is not a bright one. The farmers in my district are no better off than those in any other rural area, yet they are blessed with some of the most fertile and productive land in the Midwestern U.S. This fertility is due to a great extent to the underground water supply provided by the Ogallala aquifer. I can not, with good conscience, allow a federal agency to begin drilling shafts through one of the most important resources of my

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district without greater assurances as to its safety than have currently been provided. Further, once the shafts are drilled, and salt has begun to be removed, the DOE has no plans for its storage. Currently, I believe it is their intention to just store it above ground in piles that can be blown by the West Texas winds. I don't have to tell you the damage to farm land this action promises.

This "hurry up and drill at any costs" mentality is characteristic of the site selection thus far, and will only result in more opposition for DOE, and more frustration for residents of Texas, Washington State, and Nevada.

For this reason, Madame Chairman, many concerned individuals have sought to place a restraint on the Department of Energy. In this regard, Congresswoman Barbara Vucanovich of Nevada has introduced legislation, that I have cosponsored, which would force Congress to reconsider the process whereby sites for the disposal of nuclear waste are chosen. Whether through legislation of this type, or another attempt to halt the site selection process, it is our responsibility to ensure that the Department of Energy does not cut either corners or deals in making decisions that could affect our descendents for thousands of years to come. I thank you.

Mrs. LLOYD. Thank you very much, Mr. Boulter.

Do you have any questions? Please proceed, Mr. Barton.

Mr. BARTON. Madam Chairman, I have a question for Congressman Boulter. On page 3 of your testimony you talk about the 12-foot diameter shafts that are being drilled and there is not currently the technology available to drill through the aquifer. Do you have any idea how soon such technology might be available or if in fact it is not available, what damage to those aquifers would do to the economy and environment in west Texas?

Mr. BOULTER. I don't know how soon the technology will be available. DOE says it is in sight right around the corner. My understanding is that so far the only shafts that have been drilled are approximately 1 foot in diameter, and when they are drilled through an aquifer, they have experienced profound leaking in those shafts, and yet here they are talking about a 12-foot diameter shaft through the Ogallala aquifer which supplies 8 or 9 States with underground water.

Mr. BARTON. What is the—in the area that they are drilling, Congressman Boulter, what is the depth of the aquifer? How many feet would they have to drill through?

Mr. BOULTER. There may be others who are more qualified, but I think in that particular area we are talking about 400 feet or so.

Mr. BARTON. 400 feet. OK, thank you.

Mrs. LLOYD. Thank you very much. Any further questions?

Mr. Morrison.

Mr. MORRISON. Perhaps as much of a comment as anything, Congressman Weaver. I know you were part of that original Nuclear Waste Policy Act. I have always looked at it as Superfund in advance; that is, we were going to do the work, make the decisions scientifically before we created any problems, and you see that procedure as having gone astray. Do you still have faith in the procedure if we really got back with it?

Mr. WEAVER. An excellent first rate question, I think, a very penetrating question. The reason I voted against the bill is that it struck me that it was waving a wand. We can't solve the problem, so we are going to wave a legislative wand over the problem and say it is solved, and I just never did feel that. Actually more of the time limits, the mandates, et cetera, haven't been met so far as we know where possible.

The scientific methodology, however, in the bill, that engineering methodology, that made sense to me, and set out the criteria that should be followed, our basic engineering and scientific way. That certainly should be followed, and on that kind of methodology, yes, I agree. But I shudder when I hear my colleague from Texas talk about drilling through Ogallala aquifer. My God. What eons of damage could occur to that part of our country because of that, and that is what I am talking about, is that I am not sure that they really know what they are doing, yet, and I think they should go back to the drawing boards.

Mr. MORRISON. Thank you.

Congressman Boulter, first I want to express my appreciation to you as one of the cohorts, if you will, of this great party we are having and for your support on a number of things. I just wanted to mention to you, not so much as a question as the fact that the

package of responses to the Department of Energy from the State of Washington we hope will be ready yet this week, and we would like to have you take a look at it because it incorporates some of the ideas you have just presented to us in your testimony, like the stop the merry-go-round, and let's get back to the science of the matter and utilize an independent board to actually oversee this new procedure.

We will invite both of you to take a look at that as it is being prepared. Thank you very much, Madam Chairman.

Mr. BARTON. Madam Chairman, I have one more question for Congressman Boulter that I forgot to ask.

Mrs. LLOYD. Please proceed.

Mr. BARTON. Beau, I am told that the State of Texas has got a law that says that you can't drill through an aquifer. Is that true?

Mr. BOULTER. Well, without obtaining a permit. I think oil wells are drilled through aquifers in some locations once a permit is obtained, but there is a law that says you have to obtain a permit. The DOE has long ago stated that it fully intends to obtain a permit, so I don't see that as a particular problem unless they can't obtain the permit. They do have a lot of hurdles to go.

Mr. BARTON. OK, thank you.

Mrs. LLOYD. Thank you very much, gentlemen, for being our witnesses today.

Mrs. LLOYD. I would like to ask our next three witnesses who represent the State of Washington, Texas, and Nevada to come to the table so that we can receive their testimony in a panel, as well. I think the questions that we are going to ask you are all going to be very similar, so I think it would help if we could have all three of you with us today.

We do have Mr. Steve Frishman, a representative of the Governor of Texas, and we also have Mr. Grant Sawyer, a former Governor of the State of Nevada and is now chairman of the Commission on Nuclear Projects representing the Governor of Nevada, the Honorable Richard Bryan.

Our witness from the State of Washington, I thought you might like to introduce.

Mr. MORRISON. Thank you, Madam Chairman. I would like to have the honor of introducing a former legislative colleague of mine, State Senator Al Williams, who is chairman of our Senate Energy and Utilities Committee, and in the State of Washington we have had a number of years of working and wrestling with this problem, so this is not a new issue for us, and Senator Williams is here to present testimony as prepared by our Governor, Booth Gardner, who has been a leader in the entire issue of handling nuclear waste, both at the low level where we have been successful with legislation through this Congress, and now the high-level issue where we have been somewhat less than successful.

Al, it is nice to have you with us.

Mrs. LLOYD. We do welcome all three gentleman, and you may proceed as you wish. Mr. Sawyer, will you be our lead off witness.

STATEMENT OF HON. GRANT SAWYER CHAIRMAN, NEVADA
COMMISSION ON NUCLEAR PROJECTS, STATE OF NEVADA

Mr. SAWYER. Thank you, Madam Chairman, members of the subcommittee. I am Grant Sawyer, and I am chairman of a relatively new Commission on Nuclear Projects in the State of Nevada. I am a former two-term Governor of the State of Nevada. I am testifying today primarily on behalf of Gov. Richard Bryan. At the outset, Madam Chairman, I would like to express my appreciation to you and to the members of your committee for conducting this hearing on this most critical issue.

Without qualification, Nevadans feel that the Department of Energy's handling of this program has been a disaster and illegal in many respects. It is the overwhelming consensus of opinion in my State that the Department of Energy has preselected and prejudged the suitability of Yucca Mountain site sometime ago and that all of the work done by DOE since the passage of the act has been designed to preserve and protect this preselection.

There is no need to describe these actions in detail. Other witnesses have. However, the list includes promulgation of siting guidelines that guarantee that both Nevada and Washington will be characterized regardless of their obvious technical flaws. Environmental assessments that are inadequate, illegal, fail to meet the statutory requirements of the act.

Environmental assessments are arrived at with no involvement of the States and Indian tribes despite the language in the act which requires such involvement. Even congressional committees are denied access to the working papers which support the methodology of site selection and ranking.

Now we learned, Madam Chairman, I think just last week that the vital evidence relating to the preparation of these documents has been destroyed by the Department. The Department now admits that it has made a billion-dollar mistake or worse, has manipulated the construction cost figures contained in the environmental assessments.

Madam Chairman, as you know, the Secretary of Energy has already made on May 28, 1986, the preliminary determination of suitability that is required by 114(f) of the act to be made after, not before, site characterization is completed, and further, the Secretary, also on May 28, 1986, made a unilateral decision to drop or indefinitely postpone the second round selection process. This appears to us, at any rate, Madam Chairman, to be a clear violation of the act.

DOE recommends conducting no research into alternatives of geologic disposal. We believe that that is also required by the law. The decision to drop or defer the second round leaves the program with no insurance policy or backup if the three sites to be characterized do not prove to be suitable.

In short, the Department of Energy, in our opinion, has cannibalized the act, placing the program, the industry and the Nation at great risk, leaving many with the feeling that it is now impossible that a repository can be built in this country now or in the future.

Concerns regarding DOE's information of the act are not unique to Nevada really or to any of the other States. The U.S. Govern-

ment Accounting Office has issued reports critical of certain aspects of the program. The Secretary's handpicked panel to study the alternative means of managing and financing the program have been very concerned about the DOE's handling of the program.

States such as Nevada, as has already been mentioned, have had to go to court to try to force DOE to allow us to participate in the program. There are some over 20 actions that are now filed by the various States. Even with a favorable court decision, Madam Chairman, the DOE has still refused to allow us to participate in many of the aspects of the program which the law mandates.

In our opinion, Madam Chairman, this program must be brought to an immediate halt. We just don't feel that it can go any further. Funding for site characterization activities must be denied in order to jilt the Department of Energy back to reality. Recently, as has already been indicated and has been made a part of your record, 19 Governors and attorneys general from the Western States, as well as the new Commission on Nuclear Projects, have adopted resolutions condemning the DOE decision on May 28, and urged that the entire program be brought to a halt.

Today on behalf of Governor Bryan, I am requesting a full-scale congressional investigation by whatever means are appropriate into the Department of Energy's implementation of the act, and specifically into its site selection process. Consistent with the views of the western Governors, the western attorneys general, including corridor States and all first round States, this process must be terminated and not resumed until a comprehensive congressional inquiry is conducted and completed. There should, at the very least, be a moratorium on all activity until Congress has had an adequate opportunity for review.

This inquiry should examine, among other things, how the schedule on the spent fuel inventory projections were originally determined and presented to Congress by DOE in 1981 and 1982. If the spent fuel projects do not now support the search for a second repository, and they appear not to, as the Secretary, at any rate, would have us to believe, then perhaps there is presently no need to rush to judgment on a first repository. The figures have been drastically altered.

The thought has occurred to us that possibly the Congress and the nation were stampeded into passing the Nuclear Waste Policy Act in 1982 on the basis of faulty information and data supplied by the agency which has been, in our opinion, so grossly inept and self-serving for so many years. These and other questions, we believe, need to be closely investigated by Congress if the public is to ever have any confidence in the nuclear option.

In conclusion, Madam Chairman, the manner in which this entire program has been handled is appalling, and it is doomed to failure. The Secretary's actions in implementing the act, the deception regarding spent fuel inventories, the decision of May 28, 1986, to in effect abandon the second round, the admission of destroying vital evidence, and manipulating construction costs data calls into question the entire Nuclear Waste Policy Act which DOE, in our opinion, can no longer be trusted to implement.

It is clear that some congressional action must be taken before it is too late. That action must be a termination, in our opinion of the current program and a full-scale congressional inquiry of some kind into the department's handling of this program. If it resumes, it must contain full funding of the alternatives to geologic disposal. It must establish a new truly national screening program to identify multiple sites in all regions of the country.

Madam Chairman, if one thing is clear, it is, as Congressman Reid has indicated, and Governor Bryan, that Nevada will not and cannot be complacent while a reckless, out of control Department of Energy attempts to railroad a high-level nuclear waste dump into our State. Thank you very much.

[The prepared statement of Mr. Sawyer follows:]

RICHARD H. BRYAN
Governor

STATE OF NEVADA



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"On Behalf of Governor Bryan, I am today calling for a full-scale congressional investigation into the U.S. Department of Energy's entire implementation of the Nuclear Waste Policy Act of 1982, and specifically its site selection process," announced Grant Sawyer, Chairman of the Nevada Commission on Nuclear Projects and former two-term Governor of Nevada.

Congress should investigate the Department of Energy's "wholly political" handling of the search for the nation's first high-level nuclear waste repository, Grant Sawyer said Tuesday.

Sawyer, testifying on behalf of Gov. Richard Bryan before the Senate Subcommittee on Energy Research and Production, said the program should be halted to allow scientists to study possible methods of waste disposal, other than burying it deep underground.

DOE had ignored the Nuclear Waste Policy Act of 1982 which set forth how the search should be conducted.

Sawyer denounced Energy Secretary John Herrington's May 20 announcement to indefinitely halt studies to locate a possible second repository in the East or Midwest, and to narrow the first repository program to sites in Nevada, Washington and Texas.

"The intent of the Act was to provide a fair system of site selection based on technical judgments, rather than political ones, with the entire nation participating in the solution to the nuclear waste problem," he said. "But DOE's actual conduct of the nuclear waste program has fallen far short of what the Act contemplated.

"In fact, with nearly every action taken, every document published and with every decision made, DOE has systematically unraveled the finely crafted fabric of the Nuclear Waste Policy Act. The unilateral decision to drop the second repository program is the final straw."

Sawyer said DOE has bent the Act to support its own "predetermined decision" where the repository should be located, "without any real measurement of a site's attributes or any fair comparison of those attributes against those of other sites."

He said Herrington's decision that the three final candidate sites were suitable for a repository was "nothing more than a

charade to allow the Department to end site characterization with only a single site that has been prejudged and predetermined to be the lucky winner."

"This action guarantees that the Department's preselected site, based upon the path of least political resistance, will be the only site remaining after characterization," he said.

Herrington said site characterization, or detailed studies, will be conducted at Yucca Mountain, 100 miles north of Las Vegas, Nev.; Hanford, a DOE reservation in central Washington, and Deaf Smith County on the Texas Panhandle. Once the final choice is made, DOE plans to begin repository construction in 1993 and begin replacing commercial and military waste by 1998.

Gawyer said DOE had rebuffed Nevad. attempts to work within the terms of the Nuclear Waste Policy Act, and the state has frequently gone to court to protect itself. He said even a House committee had been told it would need a subpoena to obtain certain information.

"Even more disturbing, that same committee was recently told by DOE that these vital documents have been destroyed, leaving no record of the decision," he said.

"We in Nevada are convinced the Act needs to be revisited, in order to force DOE to comply with congressional intent. Perhaps the basic assumptions upon which the Act was passed should be reconsidered."

He said the Act requires DOE to develop and investigate alternative means for the permanent disposal of radioactive waste, but has refused to consider alternatives to geologic disposal. In the announcement to defer the second round repository, Herrington said part of the reason was the declining projections of spent fuel inventories at power plants.

"If, indeed, this inventory is not accumulating at the rate that was projected in 1982 and, therefore, there is no need for the second round investigations at this time, then perhaps there is no need to rush into a first repository as well," Sawyer said. "It is not unreasonable to question whether DOE and the industry stampeded the nation and Congress into the geologic disposal option and the strict timetables contained in the Act without any real need. Perhaps we need to reexamine the options to geologic disposal."

"A thorough congressional investigation into this matter is required before any further actions by DOE can be tolerated. Our observations of the accident at Chernobyl and the problems with our own space shuttle program are lessons that cannot be ignored

in the nuclear waste disposal effort. Congressional action now may prevent yet another disaster," he said.

Mrs. LLOYD. Thanks very much, Mr. Sawyer.
Mr. Frishman, we look forward to your testimony.

**STATEMENT OF STEVE FRISHMAN, DIRECTOR, NUCLEAR WASTE
PROGRAM OFFICE, STATE OF TEXAS**

Mr. FRISHMAN. Thank you, Madam Chairman, members of the subcommittee. I am Director of the Texas Nuclear Waste Programs Office. Governor White has asked that I convey his personal regrets for not being able to attend this hearing, but does appreciate that you are holding this oversight on this very important topic today.

The recent May 28 decision by the President to accept the recommendation by the Secretary of Energy of three sites as candidate sites for the Nation's first high-level nuclear waste repository and the accompanying announcements and document releases by the Secretary have caused a great deal of concern in Texas and, as you hear, nationwide about the integrity and credibility of the nuclear waste disposal program as it is being implemented by the Department of Energy.

Throughout the history of implementation of the Nuclear Waste Policy Act, we have expressed our concerns before this and numerous other congressional committees not only as they relate to the specifics of the DOE program in Texas, but also in the context of whether the purposes of the act are being accomplished in a manner that will lead to reaching the goal of safe and acceptable permanent disposal of the nation's high-level radioactive wastes.

The final actions of the President and Secretary on May 18, 1986, have served to both magnify many of our earlier stated concerns, as well as cause us to broaden the scope of our continued evaluation of whether the DOE implementation of the act is serving the purpose and goals of that complex and intricately balanced piece of legislation.

We have written testimony that is being submitted for the record today. In that testimony we discuss some major areas of great concern to us, one of which is the Secretary's May 28, 1986, decision to defer site-specific investigations for the siting of a second repository until at least the mid-1990's.

The Secretary of Energy's decision to defer site-specific studies for a second repository has cast the entire act and its program in a significant new light. Two major issues arise from this action that require a thorough public consideration before DOE should not be permitted to progress any further in its effort to address the waste disposal mission of the act. The first is whether the decision to defer the second repository program so shatters public confidence in the integrity of the program that it has become highly unlikely that this long-term, extremely costly program will succeed in arriving at a safe and acceptable high-level waste repository in the foreseeable future.

In regard to whether the decision to defer the second repository studies meets the requirements and intent of the act, it seems quite clear that the act has been violated in at least the following two ways: First, the DOE's ostensible reason for the deferral decision that the need for a second repository as it was envisioned at the

time the act was being drafted. Yet, by using this line of reasoning, it seems quite clear that the DOE is usurping the decision that the Congress has expressly reserved to itself in the act.

By clearly not authorizing the construction of a second repository in the act, the Congress has stated that a needs determination will be made by the Congress, itself, at the time a second repository is proposed. Second, the decision can be viewed to suggest that this represents an assumption on the part of the DOE that the Congress will take a favorable view of amending the act at some time in the future to permit a single, greater than 70,000 metric ton repository to serve as the Nation's only facility for the disposal of wastes. This not only tips the delicate regional balance that was of considerable importance to the passage of the act, but also raises significant safety questions regarding disposal of the wastes.

The deferral decision, from our perspective, also tremendously weakens the possibility of success in arriving at a safe and acceptable repository in the foreseeable future. The second repository deferral represents the DOE's rejection of what may be the final insurance available to assure the timely existence of any operating repository. Other insurance has been rejected earlier by the Department, or cannot be assumed to be available, such as the monitored retrievable storage facility. By the apparent assumption that the current three candidate sites will result in a licensable site, and the rejection of available and recommended backup plans, the DOE is shattering the public's and our confidence that the program is a scientifically based program of investigation in search of a safe disposal site.

It further casts a great cloud over the confidence of the public in the regulatory program of the Nuclear Regulatory Commission that is intended to result in an independent determination of the safety of whatever site is brought forward by the DOE, when the DOE's assumption at this early stage of investigation is that any of its candidate sites is licensable. The DOE is essentially asserting now that it will make a repository out of one of the three named candidate sites, even though knowledge of the sites is very limited and uneven at this time, and the Texas site, in Deaf Smith County has never even been entered by DOE for specific geologic investigations.

Before concluding this statement, I would like to make two observations that I feel are of considerable significance to this congressional oversight of DOE's implementation of the act. First, it is noteworthy that the Secretary's recommendation of the three sites for detailed characterization is not clearly supportable by the multiattribute methodology, nor is it a logical outgrowth of the comparison of sites and the environmental assessment's evaluation of each site's known characteristics against the technical standards of the DOE's recommendation guidelines.

Our conclusion is that the Secretary's recommendation is not in any way based upon a clear and reproducible analytical result using the available data from each potential site. In fact, the resulting recommendation of the Secretary looks identical to what the DOE would have selected as three sites for characterization had the act not been enacted by the Congress with its incorporated

process and specific direction to develop objective standards for the screening of potential repository sites.

The allegation still remains that the DOE developed siting standards to protect and ratify its preact conclusions about potential candidate sites. This was done through the writing of standards that are potentially vague to assure that all sites or areas identified prior to passage of the act would meet the DOE's working assumption that any site for purposes of selecting candidate sites is suitable for a repository unless some specific known and proven factor makes it clearly unsuitable.

We, as an example, have made some specific observations to the DOE in late 1985 that our analysis strongly suggests that the bedded salt of Deaf Smith County has creep and closure characteristics that cast great doubt on the DOE's ability to meet the retrieval requirements of the Nuclear Waste Policy Act, and the NRC's 10 CFR 60, as well as raising serious questions about whether a repository could be constructed and safely operated even with the application of extraordinary engineering techniques.

Our concerns are based both upon the salt mechanics data available from Deaf Smith County salt cores, and the data resulting from in situ studies at the analogous WIPP site in southeastern New Mexico. The DOE's response is essentially that the site is assumed to be suitable and the detailed site characterization will expose any flaws. Our question is whether the DOE is being sufficiently conservative, both technically and fiscally, when it makes a decision to spend \$1 billion for characterization of this site in the face of a real probability that the site will not meet statutory and regulatory requirements for a license from the NRC.

The second observation, in part, is an outgrowth of the first that I have described; that is, that the DOE's systematic undoing of the schedule, sequence, and various options of the act that Congress has reserved to itself, has resulted in the act having only three remaining functions in directing the DOE's waste disposal mission.

First, the process of the act resulted in a ratification by the President of three candidate repository sites, although this is now being legally challenged. Second, the act mandates acceptance of wastes for disposal in 1998, a generally agreed unrealistic deadline, and finally, and most important to DOE, the act establishes a vast, long-term source of funding to the DOE for meeting its own objectives and where the DOE desires, those of the act and the Congress in the Nuclear Waste Disposal Program.

Little remains of the complex and intricate balance of safety considerations and the public interest established in the act through the wisdom of Congress. As we have recommended in the past, it is time to halt the progress of the DOE implementation of the act in order to evaluate in a timely and cost-effective way whether the program needs significant redirection now before so much effort and money is expended that there is a great reluctance to even reconsider or to even consider redirection.

It is our view in Texas that a new objective set of site selection criteria must be developed and then applied to a comprehensive screening of the entire Nation. The results of that screening for two potential repositories should then be entered into the candidate site nomination/recommendation process of the act to return

to the point at which the full act or NWPA-mandated program should now exist within the sequence of that act.

The time and money expended by the redirection is clearly justifiable when viewed in the context of the Nation's need for safe, timely, acceptable, and cost-effective high-level nuclear waste disposal. Thank you, and I will be pleased to answer any questions that you may have.

Mrs. LLOYD. Thank you very much. Mr. Williams, please proceed with your testimony.

STATEMENT OF HON. AL WILLIAMS, STATE SENATOR, STATE OF WASHINGTON

Mr. WILLIAMS. Thank you, Chairman Lloyd and members of the subcommittee. Governor Gardner requested that I express his regrets that he could not be here personally to testify on this most important subject.

Mrs. LLOYD. We are sorry the Governor couldn't be here, but we are very happy that you are here with us today.

Mr. WILLIAMS. And he did ask me to present his testimony.

My name is Al Williams. I am chairman of the Washington State Senate Committee on Energy and Utilities, and I am also a member of the Washington State Nuclear Waste Board. I very much appreciate the opportunity to appear before you today and deliver a message on behalf of the citizens of the State of Washington.

On August 1, 1985, the Governor testified before Congressman Markey's subcommittee. He made the following points: The Nuclear Waste Policy Act is not being implemented in a manner which would ensure a safe site. In the State of Washington, there is an increasing lack of confidence in the waste program. If DOE continues to charge on toward site characterization behind a massive but questionable well of data, it will surely delay and possibly permanently stop repository construction. USDOE should not go to site characterization unless they have commonsense answers to our questions. USDOE must do a credible comparative analysis of sites under consideration for characterization. USDOE seems obsessed with timetables and not conscious enough of the safety concerns.

We thought USDOE listened and agreed, but USDOE's actions leading to the May 28 decisions make it clear that politics, not science, is the driving force behind the site selection process. As a result of those actions the entire process is now teetering on the edge of total collapse. Our concern is shared by all the groups with a vested interest in the safe, permanent disposal of high-level nuclear wastes:

Nuclear utilities depend on successful implementation of the site selection process. Scientific groups feel left out of the process. USDOE showed a complete disregard for Congress, the authors of the Nuclear Waste Policy Act. Even the Eastern States must recognize this as another example of USDOE's continuing mismanagement. We in Washington are concerned that the safe, permanent disposal of defense wastes is impossible with the current USDOE approach.

In selecting Hanford as one of the three sites to be characterized, DOE has ignored the results of the ranking methodology which was reviewed and approved by the National Academy of Sciences. The results of the ranking methodology indicated that the Hanford site is the most costly and the least safe site of the five sites under consideration. The most likely pathway for radionuclides to escape from a repository into the environment is through the ground water. USDOE estimates that median ground water travel time from the repository to the accessible environment at Hanford is 22,000 years. The ground water travel time at the Richton Dome site is estimated to be 35 million years. Hanford was selected. Richton Dome was not. Does this make sense to you? USDOE has given no legal, logical, or scientific rationale which supports the decision to spend \$1 billion to characterize the most costly and least safe site under consideration.

DOE's decision to unilaterally, and without notice indefinitely postpone the second-round site selection process on the purported grounds that there is not a need for the second repository, was made with arrogant disregard of the Nuclear Waste Policy Act. That blatantly political decision has destroyed whatever credibility DOE had left, and at the same time has eliminated any chance that the site selection process in its current form can be successfully implemented.

The Nuclear Waste Policy Act does not provide discretion to DOE to decide whether a second repository is needed. If DOE truly has new information, the appropriate course of action is to approach Congress with the information and seek an amendment to the act. As we all are well aware, the act is composed of a series of delicate compromises, one of the most significant of which is the requirement for a second repository site selection process.

Now DOE has attempted to unilaterally eliminate all potential granite sites and at the same time eliminate all sites located in the Eastern half of the Nation, where 54 percent of the spent reactor fuel is generated.

If the site selection process is allowed to proceed in the direction and manner it is now headed, there is no way that I could approve a decision to locate a repository at Hanford. The citizens of the State of Washington will overwhelmingly demand that such a decision be fought in every possible way until it is overturned.

As a result of the arbitrary and political actions taken by DOE on May 28, the State of Washington has filed three lawsuits in the Ninth Circuit Court of Appeals. We believe our lawsuits have an excellent chance of succeeding. But it is senseless to wait for the conclusion of what could be a very long process of litigation before taking action to get the site selection process onto the right track. I am certain we all agree that an acceptable means must be developed to safely dispose of the Nation's high-level nuclear waste.

Action must be taken immediately to restore credibility to the repository site selection process. I would like to describe a suggested course of action which the Governor believes is a positive and responsible approach, which, if followed, will restore credibility to the site selection process. Congressmen Al Swift and Sid Morrison have agreed to co-sponsor legislation which would implement this pro-

posal. Our staffs are working together to develop specific legislation.

The proposal requires Congress to take the following actions: One, bring the repository site selection process to a temporary halt. Stop-work orders are already, as you heard, in effect in Washington and Nevada due to quality assurance problems and no work has been started in Texas, therefore the immediate effects of such action would be minimal.

No. 2, restructure the site selection process; 2a, establish a significant role in the decisionmaking process for independent technical groups such as U.S. Geological Survey and the National Academy of Science. We must get the scientists directly involved and remove politics from the decisionmaking process; 2b, combine the first and second rounds and conduct a nationwide search for the safest repository; 2c, eliminate specific statutory deadlines which almost everyone acknowledges cannot be met.

No. 3, restart the site selection process after these things have been done. No. 4, require an independent study of the need for a second repository as opposed to expanding the capacity of the single repository. No. 5, authorize the construction of an MRS facility for temporary storage of high-level waste and require its completion at any early date.

In addition, Congress should withhold funding for all site-specific repository-related work until the site selection process has been restructured.

Please consider this proposal in the spirit in which it is put before you. It is a serious, positive, and responsible proposal. I realize that opening the Nuclear Waste Policy Act presents great difficulties for Congress. However, because of DOE's actions, the entire site selection process is now in serious jeopardy. The current situation calls for bold congressional action, and I ask that the subcommittee give this proposal serious consideration.

Thank you very much.

[The prepared statement of Governor Gardner follows:]

**TESTIMONY OF
GOVERNOR BOOTH GARDNER
STATE OF WASHINGTON**

for

**COMMITTEE ON SCIENCE AND TECHNOLOGY
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION**

by

WASHINGTON STATE SENATOR AL WILLIAMS

July 22, 1986

STATEMENT OF GOVERNOR BOOTH GARDNER

Thank you Chairman Lloyd and members of the Subcommittee.

Governor Gardner requested that I express his regrets that he could not be here personally to testify on this most important subject. He asked me to present his testimony. My name is Al Williams. I am Chair of the Washington State Senate Committee on Energy and Utilities, and I am a member of the Washington State Nuclear Waste Board.

I very much appreciate the opportunity to appear before you today and deliver a message on behalf of the citizens of the state of Washington.

On August 1, 1985 the Governor testified before Congressman Markey's Subcommittee. He made the following points:

- o The Nuclear Waste Policy Act is not being implemented in a manner which would ensure a safe site.
- o In the state of Washington, there is an increasing lack of confidence in the waste program.
- o If DOE continues to charge on toward site characterization behind a massive but questionable wall of data, it will surely delay and possibly permanently stop repository construction.
- o USDOE should not go to site characterization unless they have common sense answers to our questions.
- o USDOE must do a credible comparative analysis of sites under consideration for characterization.
- o USDOE seems obsessed with timelines and not conscious enough of the safety concerns.

We thought USDOE listened and agreed, but USDOE's actions leading to the May 28th decisions make it clear that politics, not science is the driving force behind the site selection process. As a result of those actions the entire process is now teetering on the edge of total collapse. Our concern is shared by all the groups with a vested interest in the safe, permanent disposal of high-level nuclear wastes:

- o Nuclear utilities depend on successful implementation of the site selection process.
- o Scientific groups feel left out of the process.
- o USDOE showed a complete disregard for Congress, the authors of the Nuclear Waste Policy Act.
- o Even the Eastern states must recognize this as another example of USDOE's continuing mismanagement.

- o We in Washington are concerned that the safe, permanent disposal of defense wastes is impossible with the current USDOE approach.

In selecting Hanford as one of the three sites to be characterized, DOE has ignored the results of the ranking methodology which was reviewed and approved by the National Academy of Sciences. The results of the ranking methodology indicated that the Hanford site is the most costly and the least safe site of the five sites under consideration. The most likely pathway for radionuclides to escape from a repository into the environment is through the groundwater. USDOE estimates that median groundwater travel time from the repository to the accessible environment at Hanford is twenty-two thousand years. The groundwater travel time at the Richton Dome site is estimated to be thirty-five million years. Hanford was selected. Richton Dome was not. Does this make sense to you? USDOE has given no legal, logical, or scientific rationale which supports the decision to spend one billion dollars to characterize the most costly and least safe site under consideration.

DOE's decision to unilaterally, and without notice indefinitely postpone the second-round site selection process on the purported grounds that there is not a need for a second repository, was made with arrogant disregard of the Nuclear Waste Policy Act. That blatantly political decision has destroyed whatever credibility DOE had left, and at the same time has eliminated any chance that the site selection process in its current form can be successfully implemented.

The NWPA does not provide discretion to DOE to decide whether a second repository is needed. If DOE truly has new information, the appropriate course of action is to approach Congress with the information and seek an amendment to the Act. As we all are well aware, the Act is composed of a series of delicate compromises, one of the most significant of which is the requirement for a second repository site selection process.

Now DOE has attempted to unilaterally eliminate all potential granite sites and at the same time eliminate all sites located in the Eastern half of the nation, where 85% of the spent reactor fuel is generated.

If the site selection process is allowed to proceed in the direction and manner it is now headed, there is no way that I could approve a decision to locate a repository at Hanford. The citizens of the state of Washington will overwhelmingly demand that such a decision be fought in every possible way until it is overturned.

As a result of the arbitrary and political actions taken by DOE on May 28th, the state of Washington has filed three lawsuits in the 9th Circuit Court of Appeals. We believe our lawsuits have an excellent chance of succeeding. But it is senseless to wait for the conclusion of what could be a very long process of litigation before taking action to get the site selection process onto the right track. I am certain we all agree that an acceptable means must be developed to safely dispose of the nation's high-level nuclear waste.

Action must be taken immediately to restore credibility to the repository site selection process. I would like to describe a suggested course of action which the Governor believes is a positive and responsible approach, which, if followed, will restore credibility to the site selection process. Congressmen Al Swift and Sid Morrison have agreed to co-sponsor legislation which would implement this proposal. Our staffs are working together to develop specific legislation.

The proposal requires Congress to take the following actions:

1. Bring the repository site selection process to a temporary halt. Stop-work orders are already in effect in Washington and Nevada due to quality assurance problems and no work has been started in Texas, therefore the immediate effects of such action would be minimal.
2. Restructure the site selection process.
 - a. Establish a significant role in the decision making process for independent technical groups such as USGS and NAS. We must get the scientists directly involved and remove politics from the decision making process.
 - b. Combine the first and second rounds and conduct a nationwide search for the safest repository.
 - c. Eliminate specific statutory deadlines which almost everyone acknowledges cannot be met.
3. Restart the site selection process.
4. Require an independent study of the need for a second repository as opposed to expanding the capacity of the single repository.
5. Authorize the construction of an MRS facility for temporary storage of high-level waste and require its completion at an early date.

In addition, Congress should withhold funding for all site-specific repository related work until the site selection process has been restructured.

Please consider this proposal in the spirit in which it is put before you. It is a serious, positive, and responsible proposal. I realize that opening the Nuclear Waste Policy Act presents great difficulties for Congress. However, because of DOE actions, the entire site selection process is now in serious jeopardy. The current situation calls for bold Congressional action and I ask that the Subcommittee give this proposal serious consideration.

Thank you very much.

Mrs. LLOYD. Thank you very much, Mr. Williams.

We have five preliminary sites. We have Washington, we have Nevada, and we have Texas. Then we have Mississippi and Utah. All five of our sites have 99.9 percent acceptability. Then we have the Department of Energy that said it needs three different geologic media, and all three of your States have been deemed to be at the acceptable geologic media.

Do you feel that because the second site has not been selected that at this point we should eliminate all work on the first site because the second site was not chosen, or because you feel that they made bad judgments in choosing your sites? Do you feel that because of the Department's decision to not go ahead with the second site because they will not be at the level of waste, that they are right? Mr. Frishman.

Mr. FRISHMAN. Madam Chairman, I think you will recall that I and representatives of both Washington and Nevada long before this totally unanticipated decision by the Secretary, were suggesting exactly the same approach. We were saying that the sites in the suite of first sites all had a great deal to be questioned in terms of their technical acceptability. The only thing from our point of view that makes them acceptable is that DOE has managed to write a set of guidelines that establish that acceptability that we are all challenging in the courts right now as being inadequate standards.

Mrs. LLOYD. Mr. Williams.

Mr. WILLIAMS. I think the first thing that concerns me is the fact that DOE, in our opinion, is not complying with the act.

Mrs. LLOYD. In what respect?

Mr. WILLIAMS. Well, first of all, I have to qualify my answers. I gave the testimony of the Governor. However, my answers are my answers and may or may not be the Governor's response as such. You should understand that.

It is our unified opinions that the act is not being complied with by DOE. In other words, it is not DOE's prerogative to shut down the second round site process. They are in violation of the act.

Mrs. LLOYD. Well, if they had gone ahead with the second site selection as the act stated, would you then oppose your State being selected in the first round?

Mr. WILLIAMS. I think we have a problem with the assumption that the 99.9 percentage rating is acceptable. We do acknowledge that the National Academy of Science commended their methodology. However, they questioned their application of that methodology and suggested that there should be independent outside people to apply that methodology, and I think that is where the real concern is. What we have is an in-house decision which tends to support where they are going.

Mrs. LLOYD. Understand where I am coming from. If the second sites had been selected as the Nuclear Waste Policy Act dictated, would you then object to your State being a site? We have two concerns; that even though that your concern over your State has nothing to do with the second site selection. Is that correct?

Mr. WILLIAMS. Right. I think the two are unrelated in a sense. In other words, the second round process in the selection of the State of Washington or Nevada are unrelated in that sense.

Mrs. LLOYD. So regardless of the second site, you still don't want Washington or Texas or Nevada chosen as a site for a repository.

Mr. WILLIAMS. On the basis of the present process, there is no confidence in that process.

Mrs. LLOYD. OK, that's all I wanted to know. Thank you very much.

Mr. MORRISON. If the chairman would yield, we feel they were both lousy decisions. That's the way they related.

Mrs. LLOYD. The Chair thinks that the remarks of the gentleman from Washington are well taken.

Mr. Combest.

Mr. COMBEST. Madam Chairman, yes, if I might just ask a couple of questions. Mr. Frishman, has the State determined what laws are currently in effect that would require compliance by the Department of Energy prior to the time that they could begin characterization?

Mr. FRISHMAN. We have not compiled a full list. There are a number of laws and regulations that are standard for the various types of activity that the Department would be entering into. We have laws regarding the drilling of exploratory holes, boreholes. We have laws regarding exhaust emissions to the air. We have a law that requires a permit for the construction of a mine shaft if it is to go through an aquifer.

We have been working on that list—the Department of Energy is working on its own list. We are very close to where we are going to compare notes and see who knows what about Texas law.

Mr. COMBEST. They are working on their own list in terms of what they deem is Texas law?

Mr. FRISHMAN. What they can discover as Texas law that they consider to be appropriate and applicable.

Mr. COMBEST. OK; you are getting to where I was headed, and you may not be able to answer this question yet, but in your discussions do you feel or do you have a concern that they may—the Department of Energy may make an attempt to get around or say that there are portions of Texas law that they do not have to comply with in order to meet the standard?

Mr. FRISHMAN. We expect them to comply with all Texas law. To date, they have not been able to give us a definitive statement that they will, in fact, comply with all Texas law, and our concern is that we do not find that the program is clearly preemptive of existing law. So we are just waiting for the first indication in actual action or decision by the Department of Energy regarding whether they will in fact comply with our laws.

Mr. COMBEST. Has the Governor's office or the State of Texas yet come up with a process which they would consider to be reasonable in the approach to continuing the repository identification process? What does the State of Texas feel that needs to be done in order to continue this process?

Mr. FRISHMAN. As we have stated various ways in testimony over the past couple of years, we are suggesting that the Department of Energy be instructed to go back to the point of section 112(a) of the Nuclear Waste Policy Act and develop objective standards for the screening of sites, not for the preservation of sites, and we feel that if the Department of Energy in the development of those site rec-

ommendation guidelines had listened to us and many other affected States and Indian tribes and other interests across the Nation during the development of those guidelines, we probably would not be in the situation that we are in right now because we would have guidelines that effectively screen for both what the act states are priorities for a nuclear waste disposal site and also what we collectively see as some of the major concerns regarding the acceptability of a site.

I still maintain, and it is difficult to prove it, but I still maintain that if we were starting cold right now and someone told us that these were the three places in the Nation, one of which was going to be a high-level nuclear waste repository, we had no standards, just given common sense and maybe a little bit of technical background, nobody would dare go near the three sites that have been selected for characterization from what little we know about those sites.

Mr. COMBEST. I think I know Mr. Frishman's answer to this one because I think we share some of the same problems in this, but I don't want to cut him out of the potential to answering this, but in terms of the credibility that Mr. Williams mentioned, have all of you experienced difficulty in getting appropriate responses from the Department of Energy throughout this entire process?

I don't mean that always the answer is going to be what we want it to be, but I know that I personally have experienced that difficulty, and I think quite certainly the State of Texas has. Has that been part of the process? Are we being singled out? Have you run into the same problem as well in getting answers to questions that you have submitted in a timely fashion?

Mr. SAWYER. Mr. Combest, Mr. Rusche was in Nevada a couple of months ago—shortly before May 28, and he testified before our Nevada Commission. I quoted the terminology of the law requiring consultation and cooperation with the States and asked him if he would interpret for us what he felt that meant. So far as I could determine, and I think Mr. Rusche is going to testify this afternoon—as far as I could determine, his answer was that if you ask us a question, we will answer it.

Now, even with that narrow definition of consultation and cooperation, we have asked so many questions that have not been answered at all, where the answers have been so deceptive and misleading that we were not able to rely on them, and as a consequence there has been no input of any real substance from the State of Nevada because we have had the iron curtain, and we cannot get through it.

Mr. COMBEST. Mr. Williams.

Mr. WILLIAMS. I probably have nothing to add to that other than that we find that working with the people at Hanford—DOE people at Hanford—tends to be a very constructive relationship. However, somewhere the communication seems to lag between DOE personnel at Hanford and DOE headquarters here in Washington, DC.

Mr. COMBEST. In saying that you really have nothing to add to that, are you concurring in what Mr. Sawyer has indicated is the problem?

Mr. WILLIAMS. Yes.

Mr. COMBEST. Mr. Frishman, again, I don't want to preempt you from answering that.

Mr. FRISHMAN. I think in the interest of time I will just say, "Yes."

Mr. COMBEST. Thank you, and thank you, Madam Chairman.

Mrs. LLOYD. Thank you, Mr. Combest.

Mr. MORRISON.

Mr. MORRISON. First, Governor Sawyer, we have heard from a number of other—the other two sites, at least, a long list of technical reasons why in fact those locations should not be considered. I have heard very little from Nevada except when Mr. Reid mentioned earthquakes.

Are there items that should be brought to the front so you will have your day in court here in front of this subcommittee?

Mr. SAWYER. Mr. Morrison, I am not qualified to talk in technical terms about whether or not Yucca Mountain qualifies. I am told by the people who allege to be qualified that Yucca Mountain will never be selected; that the defects and imperfections and problems with Yucca Mountain are so apparent that it will never be selected. They tell me that, I guess, to give me some comfort down the line, but I do have confidence in the fact that technically they know what they are talking about.

I would not want to answer that question, Mr. Morrison, but if you would like, we would be glad to submit something to you in writing on the technical basis of the qualification of Yucca Mountain.

Mr. MORRISON. I would be interested in that if that's appropriate, and since we have not heard from the Nevada Commission on Nuclear Projects before, it is nice to have a group organized to deal with these specific issues.

Senator Williams, I appreciate your including in the Governor's testimony a description of the new package that will be introduced, we hope, in just a matter of days now by Congressman Swift and myself.

I guess a question for all three of you, one of the next steps on down the line, and I think we have to presume that unless court action rather quickly stops the train from moving down the tracks, that we will face some of the next procedures that are in line, and those include the consultation and cooperation agreements.

I am just wondering if we can get a response from your three States as to how you now envision your relationship with the Department of Energy as they come knocking on your door and saying, "Now that we have done this to you, we are ready to talk about cooperation."

Are you in a position to talk cooperation with the Department of Energy at this point?

Mr. SAWYER. Mr. Morrison, with respect to Nevada, we understand that the act requires, and certainly the objective of that was well intentioned and good, that we enter into, if possible, a written agreement with respect to consultation and cooperation. We intend to follow the law in Nevada, and so long as we are in contention, we intend to do what we have to do. I will tell you honestly that the present makeup of the Department of Energy and what we feel has been insulting to the law is its implementation of the law, and

to the Congress is such that in Nevada it has so little credibility that the process of attempting to reduce to writing an agreement of the consultation and cooperation is going to be extremely difficult, if not impossible, but we will follow the law.

Mr. MORRISON. Thank you.

Mr. FRISHMAN. I concur with Governor Sawyer and say only that, in addition, that the Department of Energy, through its set of decisions on May 28, has made it difficult, if not impossible, for us to speak in terms of cooperation. We are in a very difficult position. We must follow the law in terms of when and if the Department of Energy informs us that we are within the 60-day period that the act has set out to begin consultation and cooperation negotiations for an agreement.

At that point, yes, we must do something, but it certainly puts my office and the Governor in a difficult position of having to do something that is called cooperation when in fact we have no basis for cooperation at this point. It takes two to cooperate.

Mr. MORRISON. Great. Thank you.

Mr. WILLIAMS. Mr. Morrison, I am sure you know that the State of Washington did request to start the process for consultation and cooperation. However, that process has never been culminated. We have never reached agreement—the State of Washington with the Department of Energy—in that process. We spent at least a year, I think, in trying to reach that agreement. Major disagreements occurred in the area of the liability question and also defense and transportation areas. But the primary difficulty was in the liability area.

We thought that we had agreement, basically, between DOE and the States that we would allow Congress to resolve that issue and simply recognize that there was a problem there. We, again, felt like we had lost a certain amount of ability to depend on DOE because unbeknownst to us, they chose to come and testify before Congress that the present liability act as it stands was satisfactory for the repository program, which was totally new to us. We had expected that they would simply allow Congress to make that determination based on testimony from the various States and resolving the problem.

Instead, without telling us, they simply showed up and testified in favor of the present liability laws being adequate related to powerplants. So, we already had a problem of credibility with DOE and certainly the actions on the 28th have not improved that, and we see no movement in terms of concluding a consultation and cooperation agreement with DOE.

Mr. MORRISON. I'm glad you raised the liability issue because that will be a subject before this subcommittee in perhaps even a matter of days.

Did you get fairly strong support from the other States in recognition of the liability problem that you faced?

Mr. WILLIAMS. Yes, from the States, from the National Association of Prosecuting Attorneys. There was a very strong unanimous feeling among the States that the liability question was not satisfactory under present law and needs special attention in relation to the repository.

Mr. MORRISON. Thank you very much. Thank you, Madam Chairman.

Mrs. LLOYD. Thank you, Mr. Morrison.

Governor Sawyer, you characterized the Department of Energy in dealing with you as an iron curtain; that you have not been able to communicate with them or express your concerns; is this correct?

Mr. SAWYER. Those are my words, Madam Chairman. I am wondering if they were a little too dramatic. I don't think they were. This has been one of the most frustrating experiences of my life. I have never attempted to deal with an agency—

Mrs. LLOYD. I am sure in your dealings you have many times come in contact and you have worked with the Department of Energy. Have you previous to this had this experience?

Mr. SAWYER. Well, I have been experiencing in public life nearly all of my life dealing with agencies. I have never—

Mrs. LLOYD. That is the nature of your job.

Mr. SAWYER. Part of it, yes. And public office, which I was for 16 years, Governor for 8 years, and since that time in numerous other capacities in which I have dealt with Federal agencies. I have never had an experience such I have had in the last 8 months with the Department of Energy, where you have the feeling constantly that you are being put on; that they are really not telling you all of the story, or if they are, you are not really sure that you are getting the true story. I have never had that experience before. So when I say an iron curtain, I am not sure that that is too strong.

It has just been incredible to me that a Federal agency who is dealing with the possibility of putting a nuclear waste dump in a State would refuse to cooperate with that State in attempting to achieve that end. That has been my experience, and I think that has been shared by all other people in Nevada who have attempted to deal with this issue.

Mrs. LLOYD. You just now used the term, "a nuclear waste dump." Is that the perception that you have in your State?

Mr. SAWYER. Yes, it certainly is.

Mrs. LLOYD. That this is just a waste dump.

Mr. SAWYER. Yes. Absolutely. You can call it a repository.

Mrs. LLOYD. Senator, would you elaborate on this in your State?

Mr. WILLIAMS. Oh, I agree. I think repository is simply a nice name for a dump, and I think people generally recognize that is what it is.

Mrs. LLOYD. Mr. Frishman.

Mr. FRISHMAN. We have people that call it any number of things, including dump.

Mrs. LLOYD. We won't go into those at this hearing.

Mr. FRISHMAN. I think that the Department of Energy probably could have averted the prevalent use of the word by trying to create an atmosphere of technical confidence that may have at least encouraged some of us to call it something else.

Mrs. LLOYD. Well, let me ask you, gentlemen, is there any way under any context that you would like to have a nuclear waste repository in your States? Could this committee make this more acceptable?

Mr. WILLIAMS. Let me try to answer that. I think we in the State of Washington, perhaps naively, believed that the act was the best compromise and the best process that could be established in this country for developing and finding a repository. I think we as citizens of this country accepted Congress' role in setting down that kind of act to do so. I think what has happened, and if that process were diligently followed in that the recognition at the highest criteria is the environmental protection and safety of that site, I am sure that no State would want it.

However, if the country as a whole believed that that was an honest process it went through and some State ended up being—

Mrs. LLOYD. That it was really in the national interest.

Mr. WILLIAMS. That it was in the national interest. I think people would not like it, but at least they couldn't challenge the process if they felt it was a credible process. But in this particular case, I think it is a mess, and there is absolutely no credibility in the process anymore.

Mrs. LLOYD. Do you think we should go back to the drawing board?

Mr. WILLIAMS. Yes.

Mrs. LLOYD. How much money has the Department of Energy spent in your States? I would like for all three of you to comment on this.

Mr. WILLIAMS. I am not even sure of the total amount. I think it is somewhere over \$300 million already, and I think that is one of the dangers of what is happening is because the longer the money is spent, there is a momentum that continues there, and I suspect that the Department and even perhaps Congress, then, has the kind of feeling of justifying that kind of expenditure. I think that is another reason why I think it is critical to stop it now, rather than to continue to make those kind of expenditures because it just keeps the momentum going.

The longer that momentum goes, the more difficult it is going to be to bring it back to what is a credible process.

Mrs. LLOYD. Mr. Frishman.

Mr. FRISHMAN. To my knowledge, the technical studies so far in Texas, the Department of Energy has spent on the order of between \$36 million and \$40 million.

Mr. SAWYER. In Nevada I am advised that the Department of Energy has been spending between \$70 million and \$80 million a year since 1980.

Mrs. LLOYD. These are first-class expenditures that we are discussing.

Thank you very much, gentlemen. We appreciate your testimony before the committee today, and please give our regards to the Governors of your States. Thank you very much.

Mrs. LLOYD. Our next witness is really, I suppose, the man of the hour. He has been called Ben Rusche, Ben Rusche, but he is the Director of the Department of Energy's Office of Civilian Radioactive Waste Management. He is the manager of the program responsible for implementing the Nuclear Waste Policy Act of 1982.

Ben has certainly been with us a number of times, and we are happy to have you back before the committee, and we look forward to your testimony.

Mr. Morrison, do you have any words?

Mr. MORRISON. I would just like to welcome Ben and say that at over 50 percent of the folks thus far have called for your resignation, so you are welcome here.

Mrs. LLOYD. We didn't take a tally today, though. We really didn't. We do welcome your testimony.

STATEMENT OF HON. BEN C. RUSCHE, DIRECTOR, OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT, DEPARTMENT OF ENERGY

Mr. RUSCHE. Madam Chairman, I can tell this seat is warm, so something must have been going on.

I am indeed pleased to have a chance to be with you again today and to discuss our activities, to keep the committee apprised of what we have been doing, and have an opportunity to respond to your questions. I think we are in an especially interesting time in the program, and I must say that my experience day by day reinforces the view that perhaps was evident when the act was passed; that there are sure a lot of views on the subject about what we are doing, and that makes it doubly important that we do everything we can to try to keep people informed about what we are doing, and have the opportunity, as this one provides, for us to attempt to clarify or improve upon or work with and correct deficiencies in our performance which I am sure are from time to time pointed out by various folks.

I have a great deal of pleasure also in discussing some of the recent decisions that we have made in implementing the act and to report to the subcommittee on the status of our activities related to the first and second repositories for spent fuel and high-level radioactive waste. A more formal report in the form of a mission plan revision is in preparation. After review and comment by States, tribes, the Nuclear Regulatory Commission and other Federal agencies will be formally submitted. We hope that draft that will be out for review, I hope, within the next week or 2, will provide an additional communications vehicle for you and Members of Congress to understand what we have done and why.

Let me begin, if I may, with a brief historical perspective. As I have noted on a number of previous occasions, this country has taken on a conspicuous world leadership role in solving the problem of determining how, when and by what means nuclear wastes will be treated and handled to insure the protection of the public health, safety and the environment. I recently was in Geneva at an international meeting and had the opportunity to discuss our program and had that very impression reinforced.

For many years prior to passage of the act, scientists, public policymakers and many other interested citizens worked to develop a national policy to address this problem. Many alternatives were considered. In 1957, the National Academy of Sciences concluded that geologic disposal offered the most desirable method for permanent disposal. Since then, studies have been conducted in different geologic media; national surveys of rock types have been conducted and voluminous data have been collected, analyzed and compared.

In October 1981, the President issued a Nuclear Policy Statement announcing several policy initiatives including, " * * * instructing the Secretary of Energy, working closely with industry and State government, to proceed swiftly toward deployment of a means of storing and disposing of commercial high-level radioactive waste." The President emphasized that, "We must take steps now to accomplish this objective and demonstrate to the public that problems associated with management of nuclear waste can be resolved."

Passage of the Nuclear Waste Policy Act of 1982 was the first step in accomplishing this objective. Now we are well along the way in working with interested and affected parties.

The crafters of the act recognized clearly that the task would not be easy. In addition, the resulting law is evidence of the uncertainties which must be considered.

The act authorizes one repository with limited capacity but does not itself authorize a second repository. The act requires the preparation of a proposal to Congress on the need for and feasibility of one or more monitored retrievable storage facilities, but does not authorize construction of such a facility.

The act sets schedules for meeting certain milestones, but requires involvement and participation by affected and interested parties. In addition, the act establishes a funding mechanism, the Nuclear Waste Fund, but requires congressional "appropriation and authorization" to use the special fund.

I mention these few major points in the act to highlight the appropriateness of the role Congress has reserved for itself in this major national program. The act, while explicit, still provides a reasonable degree of flexibility so necessary for working cooperatively with the States, Indian tribes, Federal agencies, local officials and the Congress and keeping all interested and affected parties informed and involved.

On May 28 of this year the President approved the recommendation of the Secretary of Energy that sites in Nevada, Texas and Washington be characterized as candidates for the first repository. This decision represents the achievement of another major milestone in the program. It marks the culmination of years of work gathering and analyzing data from site studies, scientific review, participation by States, Indian tribes and extensive public review and comment.

The achievement of this milestone provides clear evidence of progress toward the first repository. The environmental assessments, which were issued to accompany the nomination of sites, indicated the high probability that any of the five sites nominated will more than adequately satisfy the environmental standards for geologic disposal developed by the Environmental Protection Agency.

Furthermore, as I have previously stated publicly and before congressional hearings, this achievement, along with other factors, offers an opportunity for reassessing the pace of other activities, including that regarding studies in other rock types not previously studied. In this regard, DOE also announced on May 18, the indefinite postponement of site-specific work for a second repository because of the progress already made in siting the first repository

and the uncertainty of when a second repository might be needed. The areas in which we had proposed investigations are no longer under consideration.

There are many factors which relate to the need and timing of a secondary repository. Three of the more significant factors are the projected quantities of waste which will require disposal, the date when the 70,000 metric ton trigger point will be reached in the first repository, and the time required to site and construct the second repository.

With respect to the quantities of waste requiring disposal, the projections are uncertain and have been declining in recent years. For example, when the act was passed, projections were that by the year 2000 there would be approximately 65,000 metric tons of spent fuel. Our most recent projection, as indicated in the Energy Information Administration's report on the World Nuclear Fuel Cycle Requirements in 1985, for the year 2000 are that there will be around 40,000 metric tons of spent fuel, excluding defense waste. That is 40,000 in comparison with 65,000 when the act was passed. By the mid-1990's, DOE will have a far better understanding of what the projections will be for both the civilian and defense waste into the 21st century. By that time we will begin to see effects of spent fuel extended burnup and will have access to more precise information about the operating reactors.

The 70,000 metric ton limit for the first repository will provide disposal capacity well into the 21st century. Based on a startup date of the first repository in 1988 and current design receipt rates of approximately 3,000 metric tons per year, the first repository would not reach the 70,000 metric ton limit until after the year 2020.

Thus, the time when a decision would need to be made whether site specific investigation should proceed toward selection of a second repository is dependent on these projections, the startup date of the first repository and the rate of receipt of spent fuel and high-level waste at the repository. The very earliest such siting activity would possibly need to be done in the mid-1990's.

Keeping these factors in mind, I recommended to the Secretary that we not spend hundreds of millions of dollars on site investigation and identification now, but instead postpone indefinitely site-specific work related to a second repository. I further recommended that in compliance with the act we continue activities to address technical issues regarding rock types not previously studied in the first repository selection process.

The Secretary agreed with these recommendations. On May 28, the Secretary announced the significant step to characterize sites in Nevada, Texas, and Washington as candidates for the first repository; and based on that progress, announced that site-specific activities toward identification of candidates for a second repository would be postponed indefinitely.

Second, repository activities will be structured to address technical issues which have to be raised regarding disposal in crystalline rock, including fracture flow modeling, characterization techniques, and performance assessment. We will endeavor to strengthen, through the OECD's Nuclear Energy Agency, international cooperative activities to assess available research in crystalline rock, in

addition to the international cooperation concerning crystalline studies of other geologic media which might later be considered as host media for a second repository, when needed.

I might interject again that in my recent visit to Geneva and in consultation with a number of our collaborative partners in Europe and in Canada, we will be organizing an international management group related to the oversight of work in crystalline rock for the United States, as well as for other countries in the world, and our proposal to the Congress would be that we continue that activity and it be a major factor in our second repository program.

In summary, we believe the actions regarding important steps in the first repository siting process and in restructuring second repository considerations and activities are in the best interest of the American people and represent the most effective course for serving the national interest as described by the Nuclear Waste Policy Act.

One of the most important mechanisms provided by the NWPA is that of interacting with the Congress and with the public. We are following the provisions of the NWPA section 301(b) to obtain review and comment on the changes discussed today before submission to Congress. Congress took a major step forward when it collectively crafted the law that established a national policy and prescribed a program for resolving this decades-old issue. We intend to administer the program in close consultation with you. We appreciate the high degree of interest and support from this subcommittee, and we will be pleased to continue to actively seek your advice and counsel as we continue to the program.

Thank you, Madam Chairman.

Mrs. LLOYD. Thank you very much, Ben.

All the involved States and the Indian tribes as well are complaining that the Department of Energy is not involving them in an appropriate manner. I'm sure you know that the subcommittee recommended bringing them in the decision process a little bit earlier.

Why is it that the Department of Energy can't do a better PR job? They all feel that you have neglected them; that they haven't been given proper consideration, and I am sure this is not your intent.

Mr. RUSCHE. No, ma'am, it is not our intent, for sure, and I suspect that if nothing else, it represents the limitations of human beings interacting with one another, particularly when they have very different points of view.

I have had the opportunity to visit in all of the States, and at least in two of the States be in rather formal fora and have had the opportunity to discuss the very question that you are talking about.

Mrs. LLOYD. I suppose you know the act calls for consultation and cooperation.

Mr. RUSCHE. Indeed it does, and in fact we offered and sought in the manner prescribed by the act during the period before designation of sites for characterization the opportunity to work with States should they choose to do so. This is purely a discretionary activity on both the Department's part and the States, but I think we recognize—and I think to some extent the States recognize—

that the C&C process has some potential for regularizing the Department's interactions with the States.

One of the States elected to involve itself in that process on a discretionary basis on its own initiative, and I believe two, now three of the Indian tribes. Those discussions have continued for the last almost 2 years. In the case of one such State we thought we had nearly reached what we thought would be an agreement only to find that the question of liability, primarily as related to the questions addressed in Price-Anderson was a question that we couldn't resolve between us.

The other two States that are now involved in the—that have now been selected, as well as those others that were involved in the nomination process, chose not to engage in that early dialog.

Mrs. LLOYD. Why can't you bring them into the decisionmaking process a little bit earlier?

Mr. RUSCHE. I presume we can, and we try. We have tried a number of mechanisms that have worked only partially, but I think that—I am sure you have heard from those States this afternoon, and I have attempted to understand the process myself. I clearly, personally, and I think members of my staff and the Department clearly feel an obligation to work closely with such States, but I hope it doesn't sound presumptuous.

But I am forced to the conclusion that when parties want to work together and have a very different objective, that there aren't very many things you do that make each other very happy, and I think that is part of the problem that we are working on. I am hoping now that the President has identified these sites for characterization, and the question as to which sites are going to be characterized is essentially behind us, all of us will come to the conclusion that it is better for us to work together. Not necessarily that we agree on everything, but our common objective must be to determine whether these sites are in fact as suitable as our early studies tend to show.

Mrs. LLOYD. Well, the States have testified that their States are not acceptable; that there are geologic unknowns that should be taken into consideration, but at this point do you think it is appropriate to discuss the subject of the acceptability of the sites? Is this relevant at this point?

Mr. RUSCHE. I would have to say, yes, and the Congress thought it was relevant, and by means of the act directed us to follow the very course that we are following. We are not now selecting a site for the repository. We are selecting sites and have selected sites for characterization which our studies show have a high probability, we believe, of being found suitable for a repository, but we don't know that answer for sure. That's why we propose to spend about \$3 billion in characterizing those sites.

Mrs. LLOYD. We have already spent about a billion.

Mr. RUSCHE. And we are going to spend about a billion more on each of those sites so that when we get to 1991, we would have spent well over \$3 billion on those sites attempting to gain technical geological, and hydrologic data, as well as socioeconomic and related data to determine whether those sites can with high confidence meet the standards of NRC and EPA. That is the time I read

the act to say that—I hate to use the word, but when the political process ought to work.

We don't know for sure that we will find a site. We have confidence that it is adequate for us to propose to the Congress in the country that we spend \$3 billion, and that is a fair amount of confidence. I mean \$3 billion is not a trivial amount of money, especially in these days and times, and this comes from ratepayers who are the beneficiaries of nuclear power.

Mrs. LLOYD. And indeed these are the funds by the utilities of the United States of America.

Mr. RUSCHE. And really they are ratepayers. The utilities just are essentially collecting the money and sending it on as it were, so we feel a high sense of obligation to do that well. So our desire to work together, I think, is colored by the fact that we are charged by the law to find a site that is suitable.

Mrs. LLOYD. Why are these States suing the Department of Energy?

Mr. RUSCHE. Well, I think they probably would be better able to—

Mrs. LLOYD. Well, the point I was trying to make, have they exhausted their opportunities to resolve the differences with you? Is this a suit of last resort?

Mr. RUSCHE. Again, I think they really ought to speak for themselves, but the one point that is notable that I can identify from the act, that as the Congress adopted the act, the first point in the sequence in which the act provided specific—made specific provisions for a judicial challenge is at this point, at the point of selection for characterization.

Mrs. LLOYD. Well, the question I will ask you, then, is what is your basis for defending the suits?

Mr. RUSCHE. We think we have an entirely valid basis, a clear-cut procedural basis that is consistent with the act, and it is on that basis if we will proceed.

Mrs. LLOYD. Some members, I am sure you know, are stating that Congress should amend the Nuclear Waste Policy Act. If the second repository is not sited, do you agree with this, and if not, why don't you agree with it; that we should amend the Nuclear Waste Policy Act.

Can you defer this without violating the NWPA?

Mr. RUSCHE. Yes, ma'am, I think we can defer it without violating the NWPA. I do not think the act requires amendment. I think it would be a mistake to amend the act. I think the act provides both authority and direction to proceed with the second repository and provides a mechanism for the Department to interact with the States, the public and with the Congress, and in fact we have done that.

I don't want to prolong the answer, but if I may just note that at least on two occasions since I have been the Director, we have informed Congress of our inability to proceed or our choice to proceed in a way different from the act, provided that in writing to the Congress and asked the Congress to validate it every year, just as you are about to do now. Congress validates our program by appropriating funds for a very detailed budget presentation. We did not

make the date to select the sites for the first repository. We missed it by almost a year.

We did not, and think it not necessary for the second repository for the reasons that I have mentioned, and if Congress chooses to reinforce or reassert its view that the original dates were that important, we have to couple that in some way with some kind of pragmatism, and that there are some things that no matter how much money you pour into them, you can't make them move faster. And it is our view that we need not, and, therefore, I think the act need not be prepared, and we will give you the opportunity to respond to that.

Mrs. LLOYD. Well, one final question, and I think that everyone in this room will agree that you have a very thankless task, but I would like to really know what can the Congress and this committee do to help you if this is truly a national urgency. What can we do to help you?

Mr. RUSCHE. Well, I think the oversight that the committee provides and other committees of Congress provide, do provide guidance to us with respect to our interaction with the States. This must be the 20th or so hearing that I have been in in which I have heard the States respond very much like I think you have heard today, and it certainly continues to reinforce the difficulty of trying to work in this environment.

That means to me that we must try harder. Your subcommittee's oversight and continued awareness provides a vehicle for exposing their views and our views, and hopefully out of it all we can find a way to do better. I think that in addition your attention to the subject matter and the schedules and so forth that are in our mission plan revision, which we will have before you shortly, in the budget adjustments that we will have before you shortly warrant your attention, and we will certainly be responsive to your guidance.

Mrs. LLOYD. Thank you very much. We would like to thank you and the other witnesses. Mr. Valentine is here, my colleague, and he will be chairing the hearing. I want to thank all of you.

Mr. Morrison.

Mr. MORRISON. Thank you. Ben, I understand that when the National Academy of Sciences reviewed the methodology, that while they gave it a stamp of approval they also included the caveat that the public will never understand this procedure.

Are you familiar with those words?

Mr. RUSCHE. I didn't recall those exact words, but I have the letter in my folder if it is necessary to read them, but I take your word for it. I am sure the Academy acknowledged that it is a involved effort and an involved program, and communicating its intricacies to the public is a difficult task for sure.

Mr. MORRISON. And that may well be part of the problem that we face.

Mr. RUSCHE. It certainly does complicate the matter.

Mr. MORRISON. I have been very critical of the decision to drop the second sites, and I guess—well, you indicated that while Congress reserved unto itself the authorization of the second repository, you didn't really indicate that you felt you had the authority to dismiss the second repository. I am guessing that you feel that

you do have that authority; that you don't need additional approval from the Congress to indefinitely postpone the second round.

Mr. RUSCHE. On the contrary, Mr. Morrison. We feel that we have the obligation to report to Congress what our plans are, and as I have tried to indicate a moment ago, we will have a mission plan supplement that will describe that, and as provided by the act itself, changes in the mission plan ought to be reviewed by the public and, we think, by the Congress as well. That will provide a focal point for your attention and other Members of the Congress.

I think in addition, and perhaps more importantly, somehow in our best efforts, they have been woefully inadequate in communicating that we have not abandoned the second repository. We concluded it was too early to proceed with site specific activity. We continue, and in fact in the appropriations bill that I believe you will be acting on tomorrow, I believe the Appropriations Subcommittee has recommended funding in a level around \$30 million, and we will probably have a revision that is in that range for continued work primarily in technological studies related to the factors I mentioned, as well as to the international area. So when the time comes, we think now that would be about the mid-1990's, we will reevaluate the timing and need, and if we and, you, the Congress, consider it appropriate to proceed, we will be in a strong position to proceed. So we believe that we are fully complying with the act. We have changed the schedule.

Mr. MORRISON. I guess that is one that we will just have to see you in court about, because there is some argument on that, as you know.

For those of us in the State of Washington, we feel that the decision on the second round was not just the second undoing we had had during that day, but there were significant implications as far as defense waste is concerned. Remember, the State of Washington's approach to you early on was No. 1 on the liability question and No. 2 on defense waste.

Mr. RUSCHE. Yes, sir.

Mr. MORRISON. And a feeling that that decision not to proceed with the second repository virtually forced a different set of decisions, then, on the handling of high-level defense waste in the State of Washington. Are your calculations on the capacity of the first site include rather extensive use of the first site for defense waste?

Mr. RUSCHE. I am not sure of the concern you are talking about, but let me try to respond in this way: the 70,000-ton limit which the act provides that NRC may not allow us to exceed in the first repository, we think is appropriate and should not be removed, and the amount of waste that we know will be generated in the private sector, coupled with the waste that will be generated from the defense sector clearly will exceed 70,000 tons, and if you just take those two sets of figures, that suggests that there clearly would have to be a second repository unless the Congress decides to waive the 70,000-ton limit.

The question is when do you need to do that, and that is the only question I think we are really addressing and have tried to address. So I hope that we have not conveyed any impression about the defense waste that is contrary.

Mr. MORRISON. I think the problem comes that we are wrestling right now with the decision on how do you treat the high-level defense waste that has been at hand for lo these many years, and by dropping the second repository, or delaying it, in fact you almost answer that question by saying we are not going to treat it in the way many citizens in the State think it should be treated, and that is by vitrifying it and putting it in a geologic repository.

Mr. RUSCHE. I don't believe that follows, Congressman.

Mr. MORRISON. Just from the volume of it?

Mr. RUSCHE. Well, whether you vitrify—

Mr. MORRISON. We think the single-shell tanks include 10,000 metric tons by themselves.

Mr. RUSCHE. I think they probably do. That is the best estimate I have. But the total amount of defense waste is on the order of, say, somewhere between 8,000 and 16,000—probably around 15,000 or 16,000 is the best estimate that I have at the moment for the total amount of defense waste in equivalent terms, and there is going to be more than 70,000 tons of civilian waste, so we are going to have to face the question in the country, not just for Hanford or Nevada or Texas, but for the country.

If we find a site that is suitable, do we load it to more than 70,000 tons? The Act says, no, and until the Act is changed, that is the law.

Mr. MORRISON. Does the mission plan revision address the second site, and when do you think we will actually have that in our hands.

Mr. RUSCHE. I hope in a the next couple of weeks or so in draft form, and we will put it out for public comment to the States as required by the act, and that will then be out for comment for some period of time before we finalize it later on in the fall.

Mr. MORRISON. And that does include comment on the second sites.

Mr. RUSCHE. Yes, indeed.

Mr. MORRISON. Thank you.

I have a question at the request of the State of Washington I would like to give you. In fact, the response could be in writing, if you chose to do so.

The methodology required that value judgments be associated with establishing the relative importance of the site criteria to one another. How were these judgments made and by whom, and are there any documents associated with meetings that might have been involved with those value judgments.

Mr. RUSCHE. With respect to the first point, how were they made, they were made in the context of the multiattribute analysis of sites nominated, the document that I am sure you are familiar with and the staff is familiar with, which is a very complete documentation of what we did.

We have a detailed administrative record of the meetings that were held, the numbers of people that were involved by name, and the subjects that were discussed in those meetings, and we would be pleased to have those available for you, and they would be available in any proceeding that we are involved. So in that sense, the people that were involved, as the third part of your question, with

the people on my staff and the consultants that were working with us, and I believe that is all three parts, isn't it?

Mr. MORRISON. Yes, I think so, and we will have to look at those.

The last question—and, Mr. Chairman, thank you for your willingness to let me ask more than my time should justify.

We are going to be looking tomorrow at an amendment by Congressman Weaver to cut \$291.2 million out of the process of finding the first repository. What sort of an impact will that have on the program?

Mr. RUSCHE. If the \$291 million were made specific; that is, that we could not use it for site specific activity or exploratory activity related to site characterization, it would delay the program for at least a year, and my guess is somewhat longer than that. I hope that it goes without saying, and perhaps I ought not let it go that we think that would be a mistake if the Congress' view, as expressed in the act, remains that we should proceed to find a site for disposal of such waste.

I think that, as I indicated in my earlier comments, that Congress does have this mechanism each year, and in several hearings that I have been in, I think it has been astounding for people to come to the realization that we don't just get money from the utilities and then go off and spend it doing what we want to do. Our review process is as extensive, I believe, as any activity in the Government, and the annual review of our appropriations request, which includes a detailed evaluation of our programmatic objectives is the mechanism that Congress has.

If the Congress were to adopt such a course, I think it would be clearly a statement that the Congress believes that the act needs to be looked at.

Mr. MORRISON. But the House action so far has taken out second ground money and MRS money, so do you think the House is really following the direction that you would have us take?

Mr. RUSCHE. Well, I think you know my view with respect to MRS. We have not been in a position to provide a formal proposal to the Congress. I think that the MRS is a key element in an integrated waste management system, and I had hoped that long before now that we would have had proposals before you that would have warranted your support and the provision of funding for the MRS. We have not been able to do that, and in fact you probably know that we have oral arguments before the Sixth Circuit Court of Appeals on Thursday of this week, and hopefully the MRS situation would get squared away, so I would like to see that change.

The action with respect to the second repository is consistent with our proposal of changing schedule, but permitting us to continue with the nonsite specific activity, and in that sense I agree with it.

Mr. MORRISON. Thank you, Mr. Chairman, and thanks very much, Ben, I appreciate the answers.

Mr. VALENTINE [presiding]. The gentleman from Texas, Mr. Combest.

Mr. COMBEST. Thank you, sir.

Mr. Rusche, I think I have a solution to the problem. If we have all the time to ask you all the questions we want to ask you for the

next several years, you are going to be there responding to them, and we won't be getting on with any site characterizations. But unfortunately, we don't have that time.

In that regard, if the second round activities are activities, assuming that one of the sites—or that the main site is chosen from one of the three, will the two remaining sites that would not be chosen be candidates for a second repository site?

Mr. RUSCHE. If they were found suitable in the characterization program, yes, sir.

Mr. COMBEST. Well, if they are suitable for characterization under the first site, what would keep them from being suitable as a characterization in the second?

Mr. RUSCHE. Excuse me. Characterization, I am trying to describe as the effort of determining whether they are suitable for a repository. If after characterization, they are found suitable for a repository that is after characterization, they would be candidates for second.

Mr. COMBEST. Potentially, if they got by the first hit, they potentially could be target for the second.

Mr. RUSCHE. They could be, but there are other provisions in the act which require that other media be considered and other sites not previously nominated be considered, as well.

Mr. COMBEST. Now, under the law what is the Department of Energy specifically mandated to do in terms of complying with State law before characterization begins?

Mr. RUSCHE. I really ought to have one of my lawyers here with me. Let me give you just a brief personal response, and give you a written response to that in detail.

[The information follows:]

Consistent with its responsibilities under the Nuclear Waste Policy Act, the Department will endeavor to address the concerns of state and local governments. Where those concerns have been expressed in state law, the Department will comply with that law to the extent that it is constitutionally permitted. In cases where state laws are inconsistent with or conflict with federal laws, the Department will work with state and local governments to address, to the extent possible, the environmental, health, and safety concerns reflected in the state legislation.

Mr. RUSCHE. In general we have tried to take the position that we will comply with State laws in every case unless we get to some position or circumstance in which they are in conflict with Federal law.

Mr. COMBEST. Excuse me for interrupting, but would that be Federal law as under the Nuclear Waste Repository Act?

Mr. RUSCHE. I think I ought to be more restrained in my response, and get you something in writing if you would permit me to. I'm not a lawyer. I know what our intent is, and what my personal attitude is about it, but just how this interacts with those details, I am a little bit uncomfortable in trying to answer that question.

Mr. COMBEST. To just follow up with your response, and potentially in your written response, it could be addressed. One of the concerns that is expressed is that in those areas that would extremely complicate the process characterization due to a State law that there are basically ways in which that law could be gotten around. I'm not implying that that is the intent, but it is a concern

that has been expressed, and one which I think part of the overall credibility needs to be addressed.

Mr. RUSCHE. Let me just reiterate that it is our intent, as a general statement, to follow State law.

Mr. COMBEST. I had a question, but I think you answered this. Let me make certain. In your opinion, the current act says that you do not have the authority to expand the 70,000 metric ton capacity for a single site?

Mr. RUSCHE. That is correct.

Mr. COMBEST. And one other thing—Mr. Chairman, I thank you for your time. It has been pretty strongly expressed here this afternoon, Mr. Rusche, that the Department of Energy has not been extremely cooperative, and I understand that, of course, cooperation certainly is open to interpretation, particularly when an answer may not be what we want it to be, we may say that that is uncooperative. But it has been pretty strongly expressed.

This is something which a lot of people feel a threat to their life and their livelihood, and it is something which is very emotional. It is something which, obviously, is very unknown and concerns a lot of people. I heard your response earlier in your opening testimony on cooperation and trying to work with the States. But it is something that, as you know, I have expressed to you. It is something that I have expressed to others in the Department of Energy, but it is something which I think is extremely important, and that is that a responsive attitude and a cooperative attitude from the Department of Energy, because I think there is this feeling also among the States and those of us who have them in our districts that the Department of Energy has pretty much got the power to do almost as they wish, and I don't think that this is necessarily so.

But I do think that I will be remiss if I don't continue to express to you my concerns and my desires that the Department of Energy be as responsive and as cooperative as possible with the people concerned in this.

Mr. RUSCHE. I appreciate your sincere comment, and I know that the test that most people apply is not what we say, but what we do, and I think that is the test that I would apply. I am confident, also, as I have said in several of the States, that I don't know a single State that would say we have achieved the objective that both of us think we need to achieve.

We are constrained to follow the act. I am committed as a part of the Government. I am obligated to try to follow the law to the best of my ability, and where I can't make evident what we are doing so that if it is incorrect, we can find ways to correct it, and we want to do that. I think that the willingness of States to really work together and the Department to really work together is something that we have said and has not been achieved.

I accept your criticism and the criticism of all of the States that using their standards we have not, by any means, satisfied the objective which they think we should meet, and we can do better. I think that a consultation and cooperation agreement process has some potential for clarifying what some of those are. It still may not be agreement, but it may turn out to be elucidation of the subject so that we will be at least more kindly disposed to one another.

We have one precedent that I can point to in which this is at least partially true, and that is the experience in New Mexico. There the Department is constructing a site for the disposal of transuranic waste, and I think that although the process was nothing like as public as this process in its creation and in its execution, it nevertheless led to that relationship between the Department and the State as one of trying to be cooperative and to be consultative. It was a very difficult set of exercises because I think, very much like I have said, for many people a desire that the activity not proceed, and in that environment, we are always going to have very different views.

That doesn't mean we shouldn't try harder, and I commit to you now, as I have tried to commit to everybody that I have talked to, we are going to continue to try harder, and hopefully we can do better. At some point, it may become evident that doing better is not good enough, and if that is the case, I am sure we and you, as the Congress and the States, will come to that conclusion eventually. I hope not. I think the act is a marvel of legislation and dealing with an extremely contentious subject, and I am sure most folks here and you recognize that it is a contentious subject.

I think I recognize it as much as anybody. If you saw my mail and the cartoons I get, and what not, I don't have much doubt when I go to bed at night that I am running a popularity contest.

Mr. COMBEST. I see some of it because I send some of it.

Mr. RUSCHE. I knew it was coming from some special source. But I do appreciate your view, and we will certainly try to do better.

Mr. COMBEST. Thank you, Mr. Chairman.

Mr. VALENTINE. Thank you, Larry. Mr. Rusche, thank you very much for coming. I don't have any questions. I would like to say at the end that I think you apparently understand the magnitude of the problem. It is very difficult for this Member to find a more contentious area that one would have to operate in this day and time, and we thank you for your contribution.

Mr. VALENTINE. Our last witness is Dr. Edward M. Davis, who is president of the American Nuclear Energy Council who is here on behalf of the American Nuclear Energy Council, Edison Electric Institute, and the Utility Nuclear Waste Management Group. Dr. Davis, we are happy to have you here. If you would identify your colleague for us, and we will accept your prepared statement, and you may summarize it or proceed in any other way that you deem appropriate.

STATEMENT OF EDWARD M. DAVIS, PRESIDENT, AMERICAN NUCLEAR ENERGY COUNCIL

Mr. DAVIS. Thank you, Mr. Chairman and members of the subcommittee. I am pleased to appear before you today to testify on the Department of Energy's progress in implementing the Nuclear Waste Policy Act. My name is Edward M. Davis, and I am president of the American Nuclear Energy Council.

Here with me appearing today is Steve Kraft, who is the director of the Utility Nuclear Waste Management Group. My testimony today is presented on behalf of the American Nuclear Energy

Council, the Edison Electric Institute, and the Utility Nuclear Waste Management Group.

ANEC represents over 100 organizations having an interest in nuclear power, including investor, public and cooperatively owned utilities, manufacturers, architect-engineers, and various firms in the nuclear fuel cycle. Edison Electric Institute is an association of investor-owned electric utilities. Its members serve approximately 73 percent of ultimate electric customers in the Nation. EEI's membership includes the majority of DOE's waste service customers.

UNWMG is a specific activity that is funded by 44 utilities with nuclear programs, including many of EEI member companies, including public utilities and cooperatively owned utilities. Its sole purpose is to oversee the implementation of the Nuclear Waste Policy Act, and to assist in the resolution of spent fuel storage and nuclear waste disposal issues.

At this time I would like to request that my testimony be submitted for the record in full. Without bothering or burdening the subcommittee in reading my testimony, I would just like to offer a few points on some of the issues that were talked about today.

We are here in support of the DOE's decision to select sites for the characterization of the first repository and also we are here to support the deferral of the second repository site specific activities for reasons that are addressed in our testimony. As far as the nomination of the first sites for the repository, I would like to offer a few points for your consideration.

The May 28 decision represents a major milestone in the implementation of the act. Essentially it completes phase 1, which is sort of a documentation data acquisition phase of the repository, and we urged the department to proceed expeditiously with the orderly and timely process of getting on with the characterization which is essentially phase 2 of the project.

We believe the site selection decision process was carried out in full compliance with the Nuclear Waste Policy Act. We are impressed with the extensive data, analyses, evaluation, and documentation set forth in environmental assessments that support the Secretary's and the President's decision in selecting the three sites for characterization. We are encouraged that the National Academy of Sciences has favorably reviewed DOE's site selection methodology and found it appropriate and valid.

We note that the Department of Energy's assessment of accumulative releases; that is, the environmental ability of the site in combination with the engineered barriers, shows that the potential sites are well within EPA standards. As a matter of fact, DOE's analysis shows that the sites chosen for characterization are within one-thousandth and two-thousandths of 1 percent with EPA's standards for release to the environment.

For these reasons that I have articulated above, we are in support of DOE's nomination, its recommendation to the President, and the President's decision to select the three sites for characterization that include Hanford, Nevada, and Texas. We believe the site selection process was scientifically sound, and a valid one, one that will stand scrutiny.

As far as the decision to defer the second repository, I would like to offer a few points on that, as well. In principle, we support the Secretary's decision to defer the second repository. We believe that the Secretary's decision is not a program termination. If it were a program termination, we would not support it. We believe that eventually there may be a need for a second repository, albeit much later than originally projected at the time the act was passed, and therefore, we support this subcommittee's mark that was reported from the Science and Technology Committee providing for continuation of funding of generic activities related to the second repository.

The deferral of the second repository program rests primarily on several bases, one of which we think is very important, and that is that the spent fuel generation projections are declining with time, and that with the repository emplacement rates, as projected by DOE, the second repository will not be needed until the year 2020. This allows the Department sufficient time to identify and to fine tune its projections in terms of its spent fuel projection rates, as well as the emplacement rates, as well as time and to focus its energies, its resources, and staffing efforts on getting on with the job of implementing the schedule for the first repository, as well as the MRS program.

Deferring, as I mentioned, the second repository does offer an opportunity for the Department to concentrate its activities on the first repository. As Ben Rusche mentioned earlier, the Department will not be in a position to recommend a final site for the first repository in 1991. I recall that originally as the act was passed, that March of 1987, as a matter of fact next year, not too far away, the drafters of the act envision that the Department would be in a position of recommending the final sites for selection of the first repository to the Congress.

Needless to say, there has been substantial delays on both the first and second repositories. The schedules, far from being the fixed and rigid schedules under the act, have become living schedules, and the Department should have the discretion to fine-tune the schedules as circumstances warrant. As I mentioned we support the continued generic work that the Department has proposed as part of the second repository program. These activities would include the development of in situ testing methods, the development of computer models, and the participation of the international programs considering other rock bodies not included in the first round sites.

Mr. Chairman and members of the subcommittee, those are the points I wish to summarize and present to the subcommittee. I am now open for any questions that you may have for me at this time.

[The prepared statement of Mr. Davis follows:]

STATEMENT OF
EDWARD M. DAVIS, PRESIDENT
AMERICAN NUCLEAR ENERGY COUNCIL

ON BEHALF OF
AMERICAN NUCLEAR ENERGY COUNCIL,
EDISON ELECTRIC INSTITUTE

AND
UTILITY NUCLEAR WASTE MANAGEMENT GROUP

ON
CONGRESSIONAL OVERSIGHT OF IMPLEMENTATION
OF THE CIVILIAN NUCLEAR WASTE MANAGEMENT PROGRAM

BEFORE
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION
COMMITTEE ON SCIENCE AND TECHNOLOGY
UNITED STATES HOUSE OF REPRESENTATIVES

JULY 22, 1986

Madam Chairman and members of the Subcommittee: I am pleased to appear before you today to testify on the Department of Energy's progress in implementing the Nuclear Waste Policy Act of 1982. My name is Edward M. Davis and I am President of the American Nuclear Energy Council. My testimony is presented on behalf of the American Nuclear Energy Council (ANEC), the Edison Electric Institute (EEI) and the Utility Nuclear Waste Management Group (UNWNG).

ANEC represents over 100 organizations having an interest in nuclear power, including investor, public and cooperatively-owned utilities, manufacturers, architect-engineers and various firms in the nuclear fuel cycle.

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FIRST GEOLOGIC REPOSITORY SITE RECOMMENDATIONS

Since the last industry statement submitted to this Subcommittee in April 1986, significant progress has been made by the Department of Energy in implementing the Nuclear Waste Policy Act ("NWPA"). On May 26, 1986, the Secretary of Energy nominated five sites in Mississippi, Nevada, Texas, Utah and Washington as suitable for site characterization and published final environmental assessments for each nominated site. Subsequent to the nominations, the Secretary submitted the names of three of the nominated sites -- Yucca Mountain, Nevada; Deaf Smith County, Texas and Hanford, Washington -- to the President for approval for detailed site characterization, and the President approved the Secretary's recommendation. The Secretary also preliminarily determined that the three recommended sites were suitable for development as repositories. The process of site characterization to obtain the technical data that will support the choice of one of these three sites as the nation's first geologic repository can now begin in earnest.

On a more disheartening note, fourteen petitions for review have been filed to date with the United States Courts of Appeals challenging various aspects of the decisions of the Secretary and the President in selecting the three sites for characterization. Among the petitioners for review are the three states potentially most directly affected -- the states of Texas, Nevada and Washington. An additional ten suits are still pending in the

Ninth Circuit seeking to challenge DOE's Site Selection Guidelines, against which the sites were evaluated in preparing the environmental assessments for the five nominated sites. The judicial process moves exceedingly slowly as motions for dismissal of the Guidelines suits filed by the Government and utility intervenors have been pending in the Ninth Circuit for over a year without a decision. It has become abundantly clear that the affected states and various groups intent on opposing the implementation of the NWSA will plead their case before the courts at every opportunity.

While we are discouraged by the litigious nature of the opponents of the location of a geologic repository, we are encouraged by the extensive data, analyses, evaluations and documentation set forth in the environmental assessments that supports the Secretary's and the President's decisions and, we believe, establishes a strong foundation for defense of their actions in the courts. DOE established a multi-attribute utility analysis decision aiding methodology. This methodology, which has been applied to many other siting decisions, evaluated each site against performance measures derived from DOE's Siting Guidelines and against scenarios describing conditions that could affect repository performance. Each site was "scored" for each performance measure and scenario. Different weights were then assigned to reflect the considered judgment as to the importance of the impacts and the weighted results were summed.

Finally, DOE performed sensitivity analyses on the assumptions and value judgments used in the analysis.

DOE's methodology was independently reviewed and favorably commented on by the National Academy of Sciences as a part of the site nomination process. The Academy stated that the use of the methodology is appropriate and that it was impressed by the care and attention to detail with which it was implemented. Industry also performed its own independent comparative assessment of the candidate repository sites. That analysis, which was included in the comments on DOE's draft environmental assessments, further confirms the site rankings developed by DOE.

Significantly, DOE's preliminary assessment of the cumulative radioactive releases during the first ten thousand years following closure of a geologic repository ranged from two one-thousandths (0.002) to one ten-thousandths (0.0001) of the very stringent Environmental Protection Agency limits. DOE found that releases from a geologic repository appear to be so small as to be insignificant in comparison with both the EPA standard and natural background radiation. In fact, the predicted performance of all three sites is so much better than these standards that by any practical measure the three sites' performances are essentially identical.

Progress is gratifying after so much delay and we take this opportunity to commend Mr. Rusche for the quality of the decision and decisionmaking process.

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DEFERRAL OF SECOND REPOSITORY SPECIFIC SITE ACTIVITY

At the same time that the Secretary recommended three sites for characterization for the first repository, he announced that he had reassessed the timing of DOE's activities toward identification of candidates for a second repository and that he had postponed indefinitely site-specific work for a second repository. DOE concluded that Congressional consideration of a second repository was not needed until the mid-1990s or later and that spending hundreds of millions of dollars on site identification now would be both premature and unsound fiscal management. Unlike the first repository, Congress in the NWPA did not authorize a second repository. DOE is continuing to study technical issues relating to the second repository, but will not, at this time, undertake site specific studies. We believe that DOE's decision is both technically and fiscally sound.

The principal reason that consideration by Congress and DOE of a second repository in the mid-1990s would be timely is that, even with the first repository achieving operability in 1998, at the projected spent fuel/high level waste placement rate of 3,000 MTU per year [Nuclear Waste Fund Fee Adequacy, DOE/RW-0020 (March 1986)], the first repository would not reach the statutory limit of 70,000 MTU until after 2020. Since DOE estimates that it could achieve an operable second repository within 25 years after commencing a site identification process, a Congressional decision that such a process should begin is not needed before 1995.

Deferring commencement of site selection work for a second repository is also supported by declining projections of spent fuel generation and corresponding delays in the potential need for a second repository. Although, the Mission Plan (June 1985) projected total U.S. spent fuel discharges of 130,000 MTU through 2020, more recent EIA projections [World Nuclear Fuel Cycle Requirements, DOE/EIA - 0436 (December 14, 1985)] indicate a more likely range of 75,000 to 106,000 MTU, depending upon assumptions as to orders for new plants. These lower projections take into account the higher fuel burnup rates currently being achieved in nuclear reactors and the more realistic estimate of operating plants. Moreover, DOE anticipates that new projections that will be issued by EIA at the end of 1986 will be even lower.

Deferring site specific work related to the second repository provides substantial benefits to the overall repository program. It permits DOE to apply its management and manpower resources to the complex efforts associated with the three sites selected for the first repository. It enables DOE to develop and improve strategies for screening to be used in identifying potential second repository sites and, in applying those strategies in the future, to benefit from experience to date plus additional generic and technical information that will be developed in the continuing program.

Deferring second repository site specific work also results in reductions in expenditures in the range of \$500 million until

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the mid-1990's. Such reductions are fiscally prudent because they defer expenditures not currently needed. Moreover, they enhance DOE's ability to allocate funds to other portions of the high-level waste program that have higher priorities. The overall impact of the deferral should be beneficial, particularly with the use of improved screening strategies when site identification work is restarted. This decision is in line with our continuing admonition that the NWPA implementation should be carried out in an efficient and effective manner.

NWPA IMPLEMENTATION SCHEDULE

Finally, notwithstanding the most recent achievement of milestones, we continue to voice our serious concerns about the overall delay in the implementation of the NWPA. Recent DOE estimates of the total life cycle costs of the repository program demonstrate the extreme cost sensitivity to delays in the program. DOE analyses show that five to ten year delay increases total system costs by \$3.2 billion to \$6.8 billion [in 1985 dollars]. Adherence to mandated schedules is the best way to avoid significant cost overruns.

CONCLUSION

We look to this subcommittee and the Congress to provide continued oversight of, and support for, DOE's implementation of the NWPA. The nuclear waste program is the product of Congress' determination that one was needed - a determination with which we

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concur. Implementation of the NWPA must not be thwarted simply because a potential host State may not want a waste facility within its borders. There is a larger national goal at stake. In the NWPA Congress very wisely provided mechanisms for the States and Indian Tribes to be heard. However, through the veto and override mechanism, Congress reserved for itself the ultimate decision on location of the nation's high-level waste repositories. We ask that Congress see to it that its will, as expressed in the NWPA, is carried out. Thank you for this opportunity to present our views to you today.

Mr. VALENTINE. Dr. Davis, we appreciate very much the apparent attention that has gone into the preparation of this material and the manner of the presentation.

I want to ask you this question. Each of the States has criticized, of course, the Department of Energy's selection of their particular sites for characterization for a repository. Do you believe, Doctor, that their criticisms are meritorious and that all three sites are not suitable for characterization.

Mr. DAVIS. Mr. Chairman, I believe, as the earlier witness pointed out, this is not a popularity contest, and I think it is virtually impossible to satisfy the objectives of both the States and the Department of Energy. So I am not surprised to hear the testimony today, this afternoon, on the part of some of the Members of Congress, as well as some of the State representatives that are working with the Department of Energy. That is not to say there are not legitimate concerns in connection with the implementation program.

You can summarize and reduce the act to two basic mandates. One is Congress directed the Department of Energy to quit procrastinating and to get on with the job of siting the repository. The second mandate under the act was to involve the States and the public in extensive participation process. I believe that the Department has striven to try to balance tension between those two mandates, and I think Ben Rusche, the Director of the program, ought to be complimented today for his outstanding achievement in bringing the program to this point that it is today; that is, the completion of phase 1 and the opportunity, actually, to begin phase 2; that is the scientific work of constructing the exploratory shafts and setting up the scientific apparatus that is necessary to begin the testing of these geologic locations.

Mr. VALENTINE. All of the involved States, and maybe this is to be expected. All of the involved States and all of the Indian tribes are complaining that DOE is not and has not involved them in the program in an appropriate manner. Should the Department of Energy do better in its relations in these areas involving these interested States and tribes? Or, do you think that this criticism is not justified?

Mr. DAVIS. Mr. Chairman, I am not in a position to judge whether or not the criticism on specific cases is justified or not. Of course, the Department of Energy should strive to maintain cordial relations with those that interact with it at the State and local levels. I might add that the electric utility industry and the nuclear energy industry has its concerns as well. The Department of Energy hasn't listened to us at every turn.

We are concerned about the substantial delays, as I refer to in my earlier remarks, of getting on with the job of implementing the act. There have been substantial delays in implementing the first repository, the second repository, as well as the MRS.

Mr. VALENTINE. Do you know of anyplace in this country where it has been suggested that the situation is appropriate for the introduction of a repository where the local people and the local politicians have said, "Come on in; we are glad to have you."

Mr. DAVIS. There are some isolated cases. In my opinion, I believe what is necessary on the part of the Department is to develop

a very progressive what I call compensation program that addresses equity concerns. Many of the concerns I heard this afternoon, particularly concerning the deferral of the second repository address the equity issue, what I call the equity issue; that is why should one location in the country be singled out to shoulder this societal burden.

Setting safety issues aside which have to be resolved, of course, I believe that there is appropriate means available to address those equity concerns through some sort of innovative compensation program, and I would commend the subcommittee's attention to the compensation program package put together in connection with the Department's MRS proposal.

Mr. VALENTINE. Thank you. Mr. Morrison.

Mr. MORRISON. Thank you, Mr. Chairman.

Ed, you made a comment as sort of the downer, the legal challenges that are hanging out there. Do you see these only as delays, or do you see some real threat to the procedures being employed by the Department?

Mr. DAVIS. I think they are more than delays. I think they are serious challenges, and I think, as I mentioned in my testimony, the final outcome of these challenges will rest on how vigorous, how thorough, how comprehensive the Department was in putting together the documentation in support of its site selection decisions, and I believe that in the final analysis, that the Department's decision will pass muster.

Mr. MORRISON. Support the industry for monitored retrievable storage. Are you enthusiastic about the direction that the Department seems to be taking in pursuing that?

Mr. DAVIS. Congressman Morrison, we are disappointed in the progress that has been made on the MRS. As Director Rusche pointed out, the Department has been stymied because of legal actions in the State of Tennessee. The Department has been enjoined from submitting its proposal to Congress, therefore Congress is not in a position to review the proposal, nor is it in a position to appropriate funds.

The proposal would have requested an authorization for the MRS, and I strongly urge this subcommittee, and other authorizing subcommittees to seriously consider the merits of an integrated Nuclear Waste Management Program which the MRS is an integral element of.

Mr. MORRISON. Should we make efforts in the budget that is in front of us to go ahead and appropriate funds anyway in anticipation that we will clear track sometime in the future?

Mr. DAVIS. Congressman Morrison, I would encourage you to at every turn to support the Monitored Retrievable Storage Program, including any effort to restore funds. As you know, this subcommittee deleted funds and its mark from its bill as supported from this subcommittee. Energy and Water Appropriations will be on the floor tomorrow of the Congress. I don't know whether or not that is an opportunity, but certainly the industry is very supportive of it. It is working with Members of Congress.

In addition, we are working with and continue to work with the State officials and the local officials in the State of Tennessee.

Mr. MORRISON. I want the record to show that I would have asked these questions about MRS even if Mrs. Lloyd would have been here.

Mr. DAVIS. And I would have probably responded in the same way.

Mr. MORRISON. All right.

Your role in this has been interesting and I think a successful role. I think the Nuclear Waste Policy Act, itself, I think that industry had a significant amount of the action there and should get credit. Your second role, of course, is to pay the bills. You just mentioned, though, something that may be of interest, you called it an "innovative compensation program." Are you telling us that there is more. Is there an incentive out there financially for States or local areas that take on some part of the nuclear waste burden?

Mr. DAVIS. I think there has to be in the final analysis. Setting aside legitimate safety questions, assuming those are resolved, the safety questions, then I think it becomes appropriate to consider equity, basic equity, as to why in a certain location the country is being singled out to shoulder the burden, the societal burden.

You know, the democratic process works very well in divvying up the benefits of society. When you try to put that process in reverse, it often breaks down, and I really think the final outcome will depend on whether or not there is sufficient incentive, be it financial incentive or whatever, for community and the State to host a facility of this sort.

I think the same is true for not only this type of activity, nuclear waste activities, but other types of activities that are perceived negatively in our society today, including toxic waste facilities and other hazardous waste facilities.

Mr. MORRISON. So we are talking about a reverse severance tax. You take something that somebody else doesn't want to, you will be paid for it, and are you telling us that the industry stands ready to look favorably on some sort of a proposal that would relate to nuclear waste in that regard.

Mr. DAVIS. It is my belief, although I haven't checked this with my colleagues here, the ultimate payers of the program; that is, the utilities themselves, but I think we would look favorably on a reasonable and fair compensation program that might include the concept you described, reverse severance, payment in lieu of taxes, the collocation of other types of DOE activities that might be appropriately located in the same State or vicinity.

There are many ways to achieve equity, and I believe the department should be urged to consider those types of mechanisms that are available to it.

Mr. MORRISON. Thank you very much, Ed. Thank you, Mr. Chairman.

Mr. VALENTINE. Dr. Davis, I have just one other question which I approach and I ask in fear and trembling.

Mr. DAVIS. Mr. Chairman, if I might interrupt, I am flattered by the title that has been associated with my name. I am not a doctor, although I have been asked to cure many legislative ills, and so some of them call me Dr. Davis, but it is just Mr. Davis.

Mr. VALENTINE. Well, I think I can get unanimous consent of this subcommittee, if you will raise your right hand. We have that power.

Mr. MORRISON. You might even end up as head of NASA.

Mr. VALENTINE. I ask this question, and I don't want you or anybody else, especially my colleague to my left to read anything else into this, and I certainly don't speak for the permanent chairperson of this committee.

I would just like to get in the record how you feel about this and what your answer would be. When these terrible devices were detonated, when we got into the creation of this type of waste back during World War II, the program was shrouded in secrecy, and I am sure that most of the people in the State of Nevada and elsewhere did not know that these experiments were taking place in their States. Nevada had about 87 percent of the land area, and that State is owned by the Federal Government.

What is the reply that you would make to people who say, "Well, in some of these areas where the land is already contaminated where explosions have occurred both underground and above ground, and where you can walk in any direction for 2 weeks, and never see any form of life except a rattlesnake or a toad frog, what do you say to people who say we should go back to those areas that are already contaminated and dump this waste material there, except for the understandable reaction of Members of the House and Senate and the chambers of commerce and others who don't want that to happen and understandably so. But what is the answer of Mr. Davis to that question.

Mr. DAVIS. The answer probably would be that it wouldn't pass muster as far as DOE site selection guidelines are concerned, but more seriously, I don't know why that proposal wasn't given more serious consideration. I am not in a position to render any scientific judgments on that. The areas are contaminated, as you have described, but the site that the Department of Energy is looking for in Yucca Mountain is not an area that has been contaminated as far as my information is concerned.

Mr. VALENTINE. The sites were suitable as tests for the detonation of these devices but would not be suited for the wastes generated by them.

Mr. DAVIS. I'm sure that these sites were not selected with the same rigor and with an eye to meeting the same requirements, both the EPA standards, which are very, very stringent in terms of the long-term releases from the repository for a period of over 10,000 years. I am just not in a position to offer you any opinion as far as the scientific merit of those potential locations.

Mr. VALENTINE. And all of us are confronted with the political reality, at least we say that those of us in and out of Congress, we need to solve this problem, but pray have me excused. Thank you very much.

Mr. DAVIS. Thank you, Mr. Chairman. Mr. Morrison, thanks very much.

[Whereupon, at 4:25 p.m., the subcommittee was adjourned subject to the call of the Chair.]